

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959



March 15, 2011

Hadi Tabatabaee, Building Official
OC Public Works, Planning
County of Orange
P.O. Box 4048
Santa Ana, CA 92702-4048

Dear Hadi Tabatabaee:

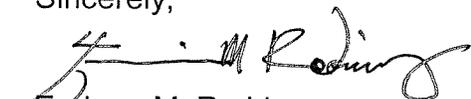
This letter is to acknowledge receipt on February 25, 2011 of the County of Orange electronic submittal pertaining to Ordinance Nos. 11-001 through 11-005 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings



Jess A. Carbajal, Director
300 N. Flower Street
Santa Ana, CA
P.O. Box 4048
Santa Ana, CA 92702-4048
Telephone: (714) 834-2300
Fax: (714) 834-5188

February 23, 2011

Dave Walls
Executive Director
California Building Standards Commission
California Building Standards Commission
2525 Natomas Park Dr., Suite 130
Sacramento, California 95833-2936

RE: County of Orange, Building Adoption Ordinance

Mr. Dave Walls:

The County of Orange has adopted the current Building, Residential, Green Building Standards, Plumbing, Mechanical, and Electrical Codes of the State of California.

The County of Orange has recommended changes and modifications to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Building and Residential Codes are reasonably necessary due to local conditions in the unincorporated area of the County of Orange and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Code or are reasonably necessary to safeguard life and property within the unincorporated area of the County of Orange.

The enclosed County of Orange Ordinance is for your files.

If additional information is desired please telephone this office at (714) 667-8843.

Sincerely,

A handwritten signature in blue ink that reads 'Hadi Tabatabaee'.

Hadi Tabatabaee P.E., C.B.O.
Building Official
OC Public Works, Planning
Hadi.Tabatabaee@ocpw.ocgov.com

Attachment: Ordinances 11-01, 11-02, 11-03, 11-04, 11-05
Resolutions 11-009, 11-010, 11-011, 11-012, 11-013

1 b. The purpose of these codes is to prescribe regulations for the erection, construction,
2 enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment, use,
3 height, area and maintenance of all buildings and structures.

4 c. Not less than one (1) copy of each has been made and is now filed in the office of the OC Public
5 Works. They are hereby adopted and incorporated as if set forth at length herein. Whenever there is a
6 difference between the California Code and the International Code, the California Code shall prevail.

7 Section 7-1-13. SECTION 101.1 OF DIVISION II of CHAPTER 1 AMENDED.

8 Section 101.1 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended
9 to read as follows:

10 TITLE

11 Section 101.1 these regulations shall be known as the Orange County Building
12 Code, hereinafter referred to as "this Code".

13 Section 7-1-14. SECTION 101.2 AND SECTION 101.4 OF DIVISION II OF CHAPTER 1 AMENDED.

14 Section 101.2 and Section 101.4 Division II of Chapter 1 of the 2010 California Building Code is
15 hereby amended to read as follows:

16 SCOPE

17 Section 101.2. The provisions of this Code shall apply to the construction, alteration, movement,
18 enlargement, replacement, equipment, location, removal, demolition, repair, maintenance and use and
19 occupancy of any building or structure within the unincorporated area of the County, and County-owned
20 buildings and structures within incorporated cities, except work located primarily in a public way, public
21 utility towers and poles, mechanical equipment not specifically regulated in this Code, and hydraulic
22 flood control structures.

23 For additions, alterations, movement and maintenance of buildings and structures see Chapter
24 34. For temporary buildings and structures, see Section 3103.

25 Where, in any special case, different sections of this Code specify different materials, method of
26 construction or other requirements, the most restrictive shall govern. Where there is a conflict between

1 a general requirement and a specific requirement, the specific requirement shall be applicable.

2 Wherever in this Code reference is made to the Appendix, the provisions in the Appendix shall not
3 apply unless specifically adopted.

4 Section 101.4.1 The other codes listed in Section 101.4.1 through 101.4.6 and referenced
5 elsewhere in the Code shall be considered part of the requirements of the Code to the prescribed extent
6 of each such reference.

7 Section 101.4.1 Gas. The provisions of the California Plumbing Code shall apply to the installation
8 of gas piping from the point of delivery, gas appliances and related accessories as covered in this Code.
9 These requirements apply to gas piping systems extending from the point of delivery to the inlet
10 connections of appliances and the installation and operation of residential and commercial gas
11 appliances and related accessories.

12 Section 101.4.2 Mechanical. The provisions of the California Mechanical Code shall apply to the
13 installation, alterations, repairs and replacement of mechanical systems, including equipment,
14 appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-
15 conditioning and refrigeration systems, incinerators and other energy-related systems.

16 Section 101.4.3 Plumbing. The provisions of the California Plumbing Code shall apply to the
17 installation, alteration, repair and replacement of plumbing systems, including equipment, appliances,
18 fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects
19 of a medical gas system. The provisions of the California Plumbing Code shall apply to private sewage
20 disposal systems.

21 Section 101.4.4 Property Maintenance. The provisions of the California Building Code shall apply
22 to existing structures and premises; equipment and facilities; light, ventilation, space heating,
23 sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants; and
24 occupancy of existing premises and structures.

25 Section 104.4.5 Fire Prevention. The provisions of the California Fire Code shall apply to all
26 matters affecting or relating to structures, processes and premises from the hazard of fire and explosion

1 arising from storage, handling or use of structures, materials or devices; from conditions hazardous to
2 life, property or public welfare in the occupancy of structures or premises; and from the construction,
3 extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the
4 structure or on the premises from occupancy or operation.

5 Section 101.4.6 Energy. The provisions of the California Energy Code, Title 24, Part 6 shall apply
6 to all matters governing the design and construction of buildings for energy efficiency.

7 *Exception: [OSHPD 1,2 & 4] Not required by OSHPD*

8 Section 7-1-15. SECTION 101.5 OF DIVISION II OF CHAPTER 1 ADDED.

9 Section 101 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended by
10 adding Section 101.5 to read as follows:

11 **UNDERGROUND UTILITIES REQUIRED**

12 Section 101.5. The Building Official shall, as a condition precedent to the issuance of a Building
13 Permit, require all utility services located within the exterior boundary lines of lot or parcel of property to
14 be installed underground if:

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

19 For purposes of this section, the term "main building" shall mean a building in which is conducted
20 the principal use of the lot or building site on which it is located.

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

24 If it is determined that practical difficulties, or unreasonable hardships inconsistent with the
25 purposes of this chapter and unique to a particular parcel of property, would result from the literal
26 interpretation of this section, the Building Official may waive, modify or delay the imposition of an

1 underground requirement imposed pursuant to this section upon written application of any affected
2 property owner. The Building Official shall notify the applicant of his decision in writing by certified mail.
3 If the Building Official determines to delay the installation of required underground utilities, he may
4 require a recorded agreement guaranteeing the future performance of the work, together with adequate
5 performance security enforceable by the County in the form of a cash deposit, bond, letter of credit, or
6 other instrument satisfactory to the County Counsel.

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

10 Any person dissatisfied with the decision of the Building Official may file an appeal with the
11 Hearing Officer within fifteen (15) days after the decision of the Building Official is deposited in the mail
12 by filing a written statement setting forth the reasons for said appeal with the County Clerk. The
13 Hearing Officer may overrule, modify, or affirm the decision of the Building Official.

14 **Section 7-1-16. SECTION 116 OF DIVISION II OF CHAPTER 1 REPLACED.**

15 Section 116 of Division II of Chapter 1 of the 2010 California Building Code is hereby replaced to
16 read as follows:

17 **UNSAFE BUILDING, NUISANCES, NOTICE, ADMINISTRATIVE HEARING, APPEAL.**

18 **Section 116. (a) Unsafe Buildings.** All buildings or structures which are structurally unsafe or not
19 provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human
20 life, or which in relation to existing use constitute a hazard to safety or health or public welfare, by
21 reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage, or
22 abandonment, as specified in this Code or in any other effective ordinance or statute, are, for the
23 purpose of this section, unsafe buildings and constitute an unsafe condition. All such unsafe buildings or
24 conditions are hereby declared to be public nuisances and shall be abated by repair, rehabilitation,
25 improvement, removal, or demolition, in whole or part, in accordance with the procedures specified in
26 this section.

1 (b) Fire Hazard. No person, including but not limited to the state and its political
2 subdivisions, operating any occupancy subject to these regulations shall permit any fire hazard, as
3 defined in this section, to exist on premises under their control, or fail to take immediate action to abate
4 a fire hazard when requested to do so by the enforcing agency.

5 NOTE: "Fire hazard" as used in these regulations means any condition, arrangement or act which
6 will increase, or may cause an increase of the hazard or menace of fire to a greater degree than
7 customarily recognized as normal by persons in the public service of preventing, suppressing or
8 extinguishing fire; or which may obstruct, delay or hinder, or may become the cause of obstruction,
9 delay or hindrance to the prevention, suppression or extinguishment of fire.

10 (c) Inspection. The Building Official shall examine or cause to be examined every building
11 or structure or portion thereof or other condition reported as unsafe, dangerous, damaged, or otherwise
12 constituting a hazard as set forth in subsection (a) of this section. Said examination shall be conducted
13 in accordance with the provisions of this Code, other applicable statutes, and the ordinances, rules, and
14 regulations of the County of Orange.

15 (d) Notice of Defects. In any case where this section is made applicable by reference or if
16 any building, structure, or part thereof is found to be an unsafe building as defined in this section, the
17 Building Official shall give notice, setting forth the defects found, to the owner, other responsible
18 person, or authorized representative, hereinafter referred to as "owner," of such building or structure.
19 The notice shall also set forth the right of the owner to be present at an administrative hearing, at his
20 option, and introduce such relevant evidence on the issues as he desires. The notice shall also set forth
21 the requirements of commencement and completion of work and the effect of failure to so do as set
22 forth in subsections (g) and (h) of this section.

23 (e) Time and Place of Hearing, Evidence. The notice shall set forth the time and place a
24 hearing shall be had before the Building Official. At the time and place so specified, evidence shall be
25 submitted as to the facts of any such defects as to reasonably establish their existence and the Building
26 Official shall determine whether the facts so established constitute an unsafe building. Evidence may

1 further be submitted as to the repairs, rehabilitation, improvements, removal or demolition considered
2 necessary to correct said defects.

3 (f) Order, Finality, Appeal.

4 (1) At the hearing and upon the determination of the existence of defects, the
5 Building Official shall determine whether such defects are subject to repair, rehabilitation, or
6 improvement, or whether they are of such a nature as to require removal or demolition of a part of or
7 the whole of any such building or structure, and he shall order such repairs, rehabilitation,
8 improvements, or demolition as is considered necessary in the case.

9 (2) The determination and order may be made orally at the hearing and shall be
10 written and transmitted to the owner within a reasonable time; the determination and order shall
11 become final within five (5) days, excluding Saturday, Sunday, and holidays, from the time it is first
12 rendered, or in the event that the owner was not present at the hearing, within five (5) days of the
13 mailing of the order to the last known address of said owner, responsible party, or representative,
14 whichever first occurs.

15 (3) Appeal. The owner shall, if he desires to do so, at any time prior to the
16 determination and order becoming final as heretofore set forth, appeal the decision of the Building
17 Official to the Hearing Officer, and shall thereupon make a determination and order affirming, reversing,
18 or modifying the determination and order of the Building Official as the Hearing Officer may deem
19 proper. The order of the Hearing Officer shall be immediately final.

20 (g) Commencement and Completion of Work. The owner shall, upon the expiration of five
21 (5) days, excluding Saturday, Sunday, and holidays, following the finality of the determination and order
22 of the Building Official (or, if appealed, the determination and order of the Hearing Officer) commence
23 the repairs, rehabilitation, improvements, removal, or demolition ordered, and such work shall be
24 completed within the time specified by the Building Official (or the Hearing Officer, if appealed).

25 (h) Failure of Commencement of Work. If the owner neglects or fails to commence, within
26 the time provided therefore, activity and the corrective work deemed necessary and as ordered, the

1 Building Official may cause the ordered repairs, rehabilitation, or improvements to be performed
2 forthwith and any cost thereof shall be a charge and expense against the owner personally and
3 collectible by an action at law.

4 (i) Right to Demolish. In case the owner shall fail, neglect, or refuse to comply with the
5 notice or order to remove or demolish said building or structure or portion thereof, the Board of
6 Supervisors of the County of Orange may order the Building Official to proceed with the work specified
7 in the notice or order. A statement of the cost of such work shall be transmitted to the Board of
8 Supervisors, who shall cause the same to be paid and levied as a special assessment against the
9 property. The Building Official may apply to the Board of Supervisors for an order under this subsection
10 to proceed with the work specified in subsection (h) above where such work is not deemed by him to
11 require emergency action.

12 (j) Costs incurred under subsections (h) and (i) shall be paid by the County. Such costs
13 shall be charged to the owner of the premises involved. The Building Official may apply to the Board of
14 Supervisors to cause the costs for such work specified in subsection (h), and shall make such application
15 for costs incurred under subsection (i), to be paid and levied as a special assessment against the
16 property and collected in the manner provided for special assessments.

17 (k) Vacation of Premises, posting of signs. If necessary, the notice shall require the
18 building or structure or portion thereof or other site to be vacated forthwith, and within the time
19 specified, in the interest of immediate public safety pending the finality of any determination and order.

20 The Building Official shall cause to be posted at each entrance to such building a notice to
21 prohibit occupancy.

22 Such notices shall remain posted until the corrected conditions, required repairs, rehabilitation,
23 removal or demolition are completed and a Certificate of Occupancy is issued as set forth in this Code.

24 Such posted notices shall not be removed without written permission of the Building Official, and
25 no person shall enter the building except for the purpose of making the required repairs or of
26 demolishing the building. The notice required by this section may be served either:

1 (1) By delivering a copy to the owner or authorized representative as designated on
2 papers, applications, or permits on file with the Building Official, personally; or

3 (2) If either or both be absent from his place of residence and from his usual or
4 designated place of business, by leaving a copy with some person of suitable age and discretion at
5 either place, and sending a copy of certified mail, receipt requested, addressed to the owner or
6 authorized representative at his place of residence; or

7 (3) If such place of residence and business cannot be ascertained, or a person of suitable
8 age or discretion there cannot be found, then by affixing a copy in a conspicuous place on the property,
9 building structure, and also delivering copy to a person there residing, if any; to the person in charge, if
10 any; and also sending a copy by certified mail, return receipt requested, addressed to the owner at the
11 place where the property, building, or structure is situated, or to the owner at his last known or
12 designated address, or both.

13 Section 7-1-17. SECTION 105.2 OF DIVISION II OF CHAPTER 1 AMENDED.

14 Section 105.2 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended
15 to replace items 1 and 2, and add item 14 as follows:

16 (1) One-story detached accessory buildings used as tool and storage sheds, play houses
17 and similar uses, provided the floor area does not exceed 120 square feet, and the structure is at least 3
18 feet from property line and 6 feet from other buildings or structures located on the same property.

19 (2) Fences not over six (6) feet high. Exception: Walls and fences less than six (6) feet in
20 height which are required as a condition of project approval to have permits.

21 (14) Other incidental structures and improvements of a minor nature may be exempt from
22 the provisions of this Code upon the determination of the Building Official.

23 Note: The balance of Section 105.2 is implemented as written.

24 Section 7-1-18. SECTION 105.3 OF DIVISION II OF CHAPTER 1 AMENDED.

25 Section 105.3 of Division II of Chapter 1 of the 2010 California Building code is hereby amended
26 to read as follows:

1 Section 105.3 Application for permit. A separate permit shall be required for each building or
2 structure. To obtain a permit, the applicant shall first file an application therefore in writing on a form
3 furnished by the OC Public Works for that purpose. Such application shall:

- 4 1. Identify and describe the work to be covered by the permit for which application is made.
- 5 2. Describe the land on which the proposed work is to be done by legal description, street
6 address or similar description that will readily identify and definitely locate the proposed
7 building or work.
- 8 3. Indicate the use and occupancy for which the proposed work is intended.
- 9 4. Be accompanied by construction documents and other information as required in Section 107.
- 10 5. State the valuation of the proposed work.
- 11 6. Be signed by the applicant, or the applicant's authorized agent.
- 12 7. Give such other data and information as required by the Building Official.

13 Note: The balance of Section 105.3 is implemented as written, except Section 105.3.2 is deleted
14 Section 7-1-19. SECTION 105.5 OF DIVISION II OF CHAPTER 1 REPLACED.

15 Section 105.5 of Division II of Chapter 1 of the 2010 California Building Code is hereby replaced
16 as follows:

17 PERMIT EXPIRATION

18 Section 105.5 Expiration. Every permit issued by the Building Official under the provisions of this
19 Code shall expire by limitation and become null and void if the building or work authorized by such
20 permit is not commenced within one hundred eighty (180) days from the date of such permit, or if the
21 building or work authorized by such permit is suspended or abandoned at any time after the work is
22 commenced for a period of one hundred eighty (180) days. Before such work can be commenced or
23 recommenced, a permit shall first be extended or re-issued.

24 1) Requesting extension of an unexpired permit: Any permittee holding an unexpired permit or
25 a permit which has expired for less than 180 days may apply for an extension of time within which
26 permittee may commence work under that permit when he/she is unable to commence or recommence

1 work within the time required by this section for good and satisfactory reasons. The Building Official
2 may extend the time for action by the permittee for a period not exceeding one hundred eighty (180)
3 days upon written request by the permittee showing that circumstances beyond the control of the
4 permittee have prevented action from being taken. Permits extended in this manner shall not be subject
5 to new regulations adopted after issuance of the permit. Fees for time extension shall be as established
6 by the Board of Supervisors. Fees shall not be required for first extension.

7 (2) Requesting re-issuance of a permit which has been expired for 180 days or more: Any
8 permittee holding a permit which has been expired for 180 days or more may apply for re-issuance of
9 the permit subject to compliance with current regulations and payment of full plan check and permit
10 fees. Plans must be re-submitted for plan check. Portions of the structure which have been built under
11 the expired permit shall not be subject to current regulations.

12 (3) For the purpose of permit extension, multiple permits of the same structure such as
13 building, foundation, retaining wall, plumbing, mechanical, and electrical permits shall be considered as
14 one permit. Extension of building permit shall include extension of ancillary permits of the same
15 structure. Each separate permit with work completed inspected and approved entirely prior to
16 suspension or abandonment shall not be subject to extension or re-issuance.

17 Section 7-1-20. SECTION 105.8 OF DIVISION II OF CHAPTER 1 ADDED.

18 Section 105 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended by
19 adding Section 105.8 to read as follows:

20 Section 105.8 Change of Contractor or of Ownership. A permit issued hereunder shall expire
21 upon a change of ownership or a change of contractor regarding the building, structure or grading for
22 which said permit was issued if the work thereon has not been completed, and a new permit shall be
23 required for the completion of the work. If the provisions of section 105.5 above are not applicable and
24 if no changes have been made to the plans and specifications last submitted to the Building Official, no
25 charge, other than a "name change" and the permit issuance fee, shall be made for the issuance of the
26 new permit under such circumstances. If, however, changes have been made to the plans and

1 specifications last submitted to the Building Official, fees as established by the Board of Supervisors
2 shall be charged to the permit application.

3 Section 7-1-21. SECTION 109 OF DIVISION II OF CHAPTER 1 REPLACED.

4 Section 109 of Division II of Chapter 1 of the 2010 California Building Code is hereby replaced to
5 read as follows:

6 Section 109. FEES AND PLAN REVIEW

7 Section 109.1 General. A fee as established by the Board of Supervisors shall be paid for each
8 permit at time of issuance.

9 Section 109.2 Permit Fees. The determination of value or valuation under any of the provisions of
10 this Code shall be as established by the Board of Supervisors. The valuation shall be the total value of
11 all construction work for which the permit is issued, as well as all finish work, painting, roofing,
12 electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other
13 permanent equipment.

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

19 Section 109.3 Plan Review Fees. When a plan or other data is required to be submitted for plan
20 review, a plan-checking fee shall be paid at the time of submitting plans and specifications for checking.
21 Said plan-checking fee shall be established by the Board of Supervisors.

22 Section 109.4 Expiration of Plan Review. Application for which no permit is issued within 180 days
23 following the date of application shall expire by limitation, and plans and other data submitted for
24 review may thereafter be returned to the applicant or destroyed by the Building Official. The Building
25 Official may extend the time for action by the applicant for a period of 180 days on request by the
26 applicant showing that circumstances beyond the control of the applicant have prevented action from

1 being taken. No application shall be extended more than once. In order to renew action on an
2 application after expiration, the applicant shall resubmit plans and pay a new plan review fee. Extension
3 or renewal of building permit application shall include extension or renewal of ancillary permit
4 applications of the same structure.

5 Section 109.5 Investigation Fee. An investigation fee as established by the Board of Supervisors
6 may be charged by the Building Official whenever work for which a permit is required by this Code has
7 been commenced without first obtaining said permit. This fee shall be paid and the investigation shall be
8 made prior to the issuance of any permit for said work. An investigation fee may be charged for any
9 investigation of a building, structure, work reports, certification or any other related work requested by
10 an owner or authorized agent of such owner.

11 Section 109.6 Fee Refunds. The Building Official may authorize refunding of fee which was
12 erroneously paid or collected.

13 Section 109.7 Additional Plan Review Fees. Where plans are incomplete or changed so as to
14 require additional plan checking, an additional plan checking fee as established by the Board of
15 Supervisors shall be paid. Said fee may be waived when in the opinion of the Building Official the
16 additional fee is not warranted.

17 Section 109.8 Conversion Inspection Fee. A fee as established by the Board of Supervisors shall
18 be paid when a conversion inspection is required by the Building Official.

19 Note: The conversion fees do not include the fees for the building permit, nor fees for electrical,
20 plumbing or heating and ventilating permits covering the alterations and/or repairs of the conversion.

21 Section 7-1-22. SECTION 111 OF DIVISION II OF CHAPTER 1 AMENDED.

22 Section 111 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended to
23 read as follows:

24 Section 111. CERTIFICATE OF OCCUPANCY

25 Section 111.1 Use and Occupancy. No building or structure shall be used or occupied, nor shall
26 the gas or electrical systems be energized, until the Building Official has determined compliance with

1 this Code, all other applicable ordinances and laws and the conditions of the building permit, and has
2 authorized occupancy of such building or structure by the issuance of a Certificate of Occupancy
3 therefore as provided herein. No change in the existing occupancy classification of a building or
4 structure or portion thereof shall be made until the Building Official has issued a Certificate of
5 Occupancy therefore as provided herein.

6 *Exception: Gas and electrical systems may be energized prior to the issuance of a Certificate of*
7 *Occupancy when properly authorized by the Building Official for the purpose of testing systems or*
8 *equipment.*

9 **111.2 Certificate Issue.** After the Building Official inspects the building or structure and finds no
10 violation of the provisions of this Code or other applicable laws and regulations, the Building Official
11 shall issue a Certificate of Occupancy.

12 Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the
13 provisions of this Code or of other ordinances of the jurisdiction. Certificates presuming to give authority
14 to violate or cancel the provisions of this Code or other ordinances of the jurisdiction shall not be valid.

15 Note: Sections 111.3 and 111.4 are implemented as written.

16 **Section 7-1-23. SECTION 113 OF DIVISION II OF CHAPTER 1 REPLACED.**

17 Section 113 of Division II of Chapter 1 of the 2010 California Building Code is hereby replaced to
18 read as follows:

19 **HEARING OFFICER**

20 Section 113.1 General. In order to determine the suitability of alternate materials and methods of
21 construction and to provide for reasonable interpretations of this Code, there shall be and is hereby
22 created a Hearing Officer. Hearing Officer shall be appointed by the Director of OC Public Works.

23 **Section 7-1-24. SECTION 114 OF DIVISION II OF CHAPTER 1 AMENDED.**

24 Section 114 of Division II of Chapter 1 of the 2010 California Building Code is hereby amended to
25 read as follows:

26 **VIOLATIONS AND PENALTIES.**

1 Section 114.1. It shall be unlawful for any person, firm, or corporation to erect, construct,
2 enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any
3 building or structure in the unincorporated area of the County of Orange, or cause or permit the same
4 to be done in violation of this Code.

5 Any person, firm, corporation violating any of the provisions of this Code shall be deemed guilty
6 of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and
7 every day or portion thereof during which any violation of any of the provisions of this Code is
8 committed, continued, or permitted, and upon conviction of any such violation such person shall be
9 punished by a fine of not more than Five Hundred Dollars (\$500) or by imprisonment for not more than
10 six (6) months, or by both such fine and imprisonment.

11 In addition to any such fine or imprisonment, the court may also require such party to correct of
12 mitigate the building violation to the satisfaction of the Building Official.

13 Section 114.1.1 In addition to the provisions of the subsections above, a notice of violation of this
14 Code may be recorded in accordance with the following procedures.

15 1. Notice of intent

16 A written notice of intent to record a notice of violation shall be served on the current
17 owner of record of the property. Such notice shall describe the property, the violation and the action
18 necessary to correct or mitigate the violation. The notice shall inform the owner that a notice of violation
19 will be recorded if the owner does not, within 20 days of receipt thereof, either correct the violation or
20 request a meeting with the Building Officials as set forth below. The notice shall include a copy of this
21 subsection 114.1.1 and be substantially as follows:

22 "Notice of Continuing Violation of the California and Orange County Building Code.

23 Notice is hereby given that the County of Orange has determined that a violation of the above
24 Code exists on the following described property (description). The violation consists of (description).

25 While a violation of the above Code exists, the County of Orange may refuse to approve
26 building or occupancy permits, subdivision maps, use permits, and other discretionary permits and

development approvals.”

2. Correction of Violation

If, within 20 days of receipt of a notice of intent, the owner corrects the violation, no notice of violation shall be recorded. The Building Official may grant extensions of time for good cause.

3. Meeting

If the owner requests a meeting, the Building Official shall schedule a meeting. Notice of the meeting shall be served on the owner not less than 15 days prior thereto. The Building Official may reschedule the meeting from time to time for a good cause with adequate notice to the landowner. At the meeting, the owner may be represented by counsel and may present any relevant evidence that violations do not exist.

4. Decision, Notice

Within 30 days following completion of the meeting, the Building Official shall issue and serve on the owner his determination as to whether or not a notice of violation will be recorded. This determination shall be supported by appropriate findings on all material issues raised at the meeting. The decision of the Building Official shall be final with respect to recordation of a notice of violation, but shall not affect other proceedings under Section 114.1.1.

5. Recordation

If the Building Official determines that a notice will be recorded, such notice shall be recorded 15 days or more days after service of notice of the decision.

6. Release of Notice

When a violation is corrected or mitigated to the satisfaction of the Building Official, if a notice of violation had been recorded, the Building Official shall cause a release to be recorded. Said release shall refer to the notice of violation and shall state that the violation described therein has been corrected.

Note: The balance of Section 114 is implemented as written, except Section 114.4 is deleted.

Section 7-1-25. SECTION 117 OF DIVISION II OF CHAPTER 1 ADDED.

Division II of Chapter 1 of the 2010 California Building Code is hereby amended by adding Section 117 to read as follows:

PLASTERING PERMITS, FEES

Section 117. It shall be unlawful for any person, firm or corporation, whether acting as principal, agent or employee, to do or cause or permit to be done any plastering work, interior or exterior, within the area covered by this Code without first obtaining a permit therefore from the Building Official, and further:

1. Every applicant for a permit to plaster shall state, in writing on the application form provided for that purpose, the character of the work proposed to be done and the amount and kind, together with such information pertinent thereto, as may be required.

2. Such applicant shall pay for each permit issued a fee as established by the Board of Supervisors.

3. Any person who shall commence on plastering work for which a permit is required by this Code without having first obtained a permit therefore, shall, if subsequently permitted to obtain a permit, pay double the fees fixed by this Code for such work.

Section 7-1-26. SECTION 1507.3 AMENDED.

Section 1507.3 of the 2010 California Building Code and the 2009 International Building Code is hereby amended to add Section 1057.3.11 as follows:

Section 1507.3.11. For the design of fasteners for tile roofing materials, the unincorporated area of the County shall be considered as a "Special Wind Region" with a basic wind speed over 80 miles per hour.

Note: The balance of Section 1507.3 is implemented as written.

Section 7-1-27. SECTION 1507 AMENDED

Section 1507 of the 2010 California Building Code and the 2009 International Building Code is hereby amended to add Section 1507.17 as follows:

1 Section 1507.17. The roof covering or roof assembly on any structure regulated by this Code shall
2 be as specified and classified in Chapter 15.

3 *Exceptions:*

- 4 1. All new buildings and additions shall be minimum Class B roof.
- 5 2. Re-roofing, repairs or replacements on buildings shall be of the same classification as the
6 original roof except that non-rated and Class C roofs shall be a minimum Class C.
- 7 3. When any re-roofing, repair or replacement to an existing roof exceeds 40 percent of the
8 roof area, the entire roof shall be replaced with minimum class B roof.
- 9 4. Roofing on buildings located within Wildland – Urban Interface Fire Area shall be Class A
10 and meet additional requirements of Chapter 7A of the California Building Code.

11 Note: The balance of Section 1507 is implemented as written.

12 Section 7-1-28. SECTION 1612.3 AMENDED.

13 Section 1612.3 of the 2010 California Building Code and the 2009 International Building Code is
14 hereby amended to insert:

15 NAME OF JURISDICTION: COUNTY OF ORANGE

16 DATE OF ISSUANCE: FEBRUARY 18, 2004

17 NOTE: The balance of Section 1612.3 is implemented as written.

18 Section 7-1-29. SECTION 1704.1 AMENDED.

19 SPECIAL INSPECTIONS

20 Section 1704.1 of the 2010 California Building Code and the 2009 International Building Code is
21 hereby amended to add Section 1704.1.3 as follows:

22 Section 1704.1.3 Special Inspector. The special inspector shall be a qualified person who shall
23 demonstrate competence, to the satisfaction of the Building Official, for inspection of the particular type
24 of construction or operation requiring special inspection.

25 Each person applying for listing as a special inspector for the OC Public Works of the County of
26 Orange shall provide evidence of experience and possess a valid Certification as a Special Inspector

1 issued by the International Code Council (ICC) or equivalent as determined by the Building Official for
2 each classification for which the person is applying.

3 A County of Orange registration card, which identifies the person as a special inspector in the
4 appropriate category, shall be issued to each such person that has successfully completed the
5 application and examination process as determined by the Building Official and upon payment of a
6 registration fee as established by the Board of Supervisors.

7 The annual renewal of the registration cards shall occur on renewal date of ICC certification or
8 equivalent for the classification being renewed. A renewal fee established by the Board of Supervisors
9 for each inspection category shall be charged. The application and renewal fee shall be accompanied by
10 appropriate evidence that the person's ICC or equivalent special inspector's certification is valid.

11 The Building Official may revoke any County of Orange special inspector's registration card at any
12 time for due cause by written notice. This notice shall set forth the time and place a hearing shall be
13 held before the Building Official at which time and place evidence would be submitted to show cause
14 why the registration card should not be withdrawn. Failure to appear at such hearing by the special
15 inspector may result in immediate revocation of said special inspector's registration card.

16 **Note:** The balance of Section 1704.1 is implemented as written.

17 Section 7-1-30. SECTION 403 AMENDED

18 Section 403 of the 2010 California Building Code and the 2009 International Building Code is
19 hereby amended to replace the title of Section 403 and amend Sections 403.1, 403.1.1, 403.4.7.2,
20 403.4.8.1 as follows:

21 **Section 403. HIGH-RISE BUILDINGS HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET**
22 **ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS AND GROUP I-2 OCCUPANCIES**
23 **HAVING OCCUPIED FLOORS LOCATED MORE THAN 75 FEET ABOVE THE LOWEST LEVEL OF THE FIRE**
24 **DEPARTMENT VEHICLE ACCESS.**

25 Section 403.1 Applicability. New high-rise building having occupied floors located more than 55
26 feet above the lowest level of fire department vehicle access and new Group I-2 occupancies having

1 occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall
2 comply with Sections 403.2 through 403.6.

3 Note: The balance of Section 403.1 beginning with Exception is implemented as written except
4 Section 403.1.1.

5 Section 403.1.1 Definitions is hereby revised as follows:

6 HIGH RISE BUILDING. In other than Group I-2 occupancies "high-rise buildings" as used by this
7 Code.

- 8 1. "Existing high-rise structure" means a high-rise structure, the construction of which
9 commenced or completed prior to July 1, 1974.
- 10 2. "High-rise structure" means every building of any type of construction or occupancy
11 having floor used for human occupancy located more than 55 feet above the lowest
12 floor level having building access (see Section 403.1.2) except building used as hospitals
13 as defined by the Health and Safety Code Section 1250.
- 14 3. "New high-rise structure" means a high-rise structure, the construction of which
15 commenced on or after July 1, 1974.

16 Note: The balance of Section 403.1.1. is implemented as written.

17 [F] Section 403.4.7.2 Standby power loads. The following are classified as standby power loads:

- 18 1. Power and lighting for the fire command center required by Section 403.4.5;
- 19 2. Standby power shall be provided for elevators in accordance with Sections 1007.4,
20 3003, 3007 and 3008

21 [F] Section 403.4.8.1 Emergency power loads. The following are classified as emergency power
22 loads:

- 23 1. Exit signs and means of egress illumination required by Chapter 10;
- 24 2. Elevator car lighting;
- 25 3. Emergency voice/alarm communication system;
- 26 4. Automatic fire detection systems;

- 1 5. Fire alarm systems;
- 2 6. Electrically powered fire pumps; and
- 3
- 4 7. Ventilation and automatic fire detection equipment for smokeproof enclosures.

5 Section 7-1-31. SECTION 412.2 AMENDED.

6 Section 412.2 of the 2010 California Building Code and the 2009 International Building Code
7 is hereby amended to add the definitions as follows:

8 Section 412.2 Definitions is hereby amended by adding the following definitions:

9 APPROACH DEPARTURE PATH. The flight path of the helicopter as it approaches or departs
10 from the landing pad.

11 EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a
12 building that is not intended to function as a heliport or helistop but is capable of
13 accommodating fire or medical helicopters engaged in emergency operations.

14 SAFETY AREA. A defined area surrounding the landing pad which is free of obstructions.

15 TAKEOFF AND LANDING AREA. The combination of the landing pad centered within the
16 surrounding safety area.

17 Section 7-1-32. SECTION 412.7 AMENDED

18 Section 412.7 of the 2010 California Building and the 2009 International Building Code is hereby
19 amended to add Sections 412.7.5 through 412.7.5.13 as follows:

20 Section 412.7.5 Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility
21 (EHLF) shall be constructed as specified in Section 412.7.5.1 through 412.7.5.13.

22 Section 412.7.5.1. General. Every building of any type of construction or occupancy having floors
23 used for human occupancy located more than 75 feet above the lowest level of the fire department
24 vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by
25 the fire code official for use by fire, police, and emergency medical helicopters only.

26 Section 412.7.5.2 Rooftop Landing Pad. The landing pad shall be 50 feet by 50 feet or a 50 foot

1 diameter circle that is pitched or sloped to provide drainage away from the access points and passenger
2 holding areas at as slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of
3 approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a
4 maximum gross weight of 15,000 pounds. For structural design requirements, see California Building
5 Code.

6 Section 412.7.5.3 Approach-Departure Path. The emergency helicopter landing facility shall have
7 two approach-departure paths separated in plan from each other by at least 90 degrees. No objects
8 shall penetrate above the approach-departure paths. The approach-departure path begins at the edge
9 of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending
10 outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

11 Section 412.7.5.4 Safety Area. The safety area is a horizontal plane level with the landing pad
12 surface and shall extend 25 feet in all directions from the edge of the landing pad. No objects shall
13 penetrate above the plane of the safety area.

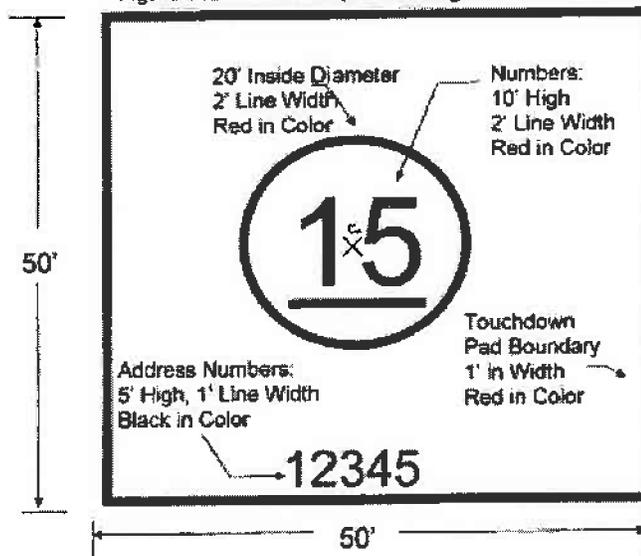
14 Section 412.7.5.5. Safety Net. If the rooftop landing pad is elevated more than 30 inches (2'-6")
15 above the adjoining surfaces, a 6 foot wide horizontal safety net capable of supporting 25 lbs/psf shall be
16 provided around the perimeter of the landing pad. The inner edge of the safety net attached to the
17 landing pad shall be slightly dropped (greater than 5 inches but less than 18 inches) below the pad
18 elevation. The safety net shall slope upward but the outer safety net edge shall not be above the
19 elevation of the landing pad.

20 Section 412.7.5.6 Take-off and Landing Area. The take-off and landing area shall be free of
21 obstructions and 100 feet x 100 feet or 100 feet in diameter.

22 Section 412.7.5.7 Wind Indicating Device. An approved wind indicating device shall be provided
23 but shall not extend into the safety area or the approach-departure path.

24 Section 412.7.5.8 Special Markings. The emergency helicopter landing facility shall be marked as
25 indicated in Figure 412.7.5.8.
26

Figure 412.7.5.8 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

Section 412.7.5.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landings areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

Section 412.7.5.10 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area be within 150 feet of a 2.5 inch outlet on a Class I or III standpipe.

Section 412.7.5.11 Fire extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairways or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area.

1 Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section
2 906.

3 Section 412.7.5.13 EHLF. Fueling, maintenance, repairs, or storage of helicopters shall not be
4 permitted.

5 Section 7-1-33. SECTION 903.2 AMENDED

6 Section 903.2 of the 2010 California Building Code and the 2009 International Building Code is
7 hereby amended to read as follows:

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

10 1. New Buildings: Notwithstanding any applicable portions of Sections 903.2.1 through
11 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies
12 when the total building area, as defined in Section 502.1, exceeds 5,000 square feet (465
13 m²), or more than two stories in height, regardless of fire areas or allowable area.

14 *Exception: Group R-3 occupancies. Group R-3 occupancies shall comply with Section*
15 *903.2.8.*

16 2. Existing building. Notwithstanding any applicable provisions of this Code, an automatic
17 sprinkler system shall be provided in an existing building when an addition occurs and
18 when one of the following conditions exist.

- 19 a. When the addition is 33% or more of the existing building area and the resulting
20 building area, as defined by Section 502.1, exceeds 5,000 square feet (465m²); or
21 b. When the addition exceeds 2,000 (185.81m²)square feet and the resulting building
22 area, as defined by Section 502.1, exceeds 5,000 square feet (465m²); or
23 c. An additional story is added above the second floor regardless of fire areas or
24 allowable area.

25 Note: The balance of Section 903.2 beginning with Section 903.2.1 is implemented as written
26

with exception that Section 903.2.8 is amended.

Section 7-1-34. SECTION 902.2.8 AMENDED.

Section 903.2.8 of the 2010 California Building Code and 2009 International Building Code is hereby amended to read as follows:

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

1. New Buildings: An automatic sprinkler system shall be installed throughout all new buildings.
2. Existing buildings: All existing buildings shall be equipped with an automatic sprinkler when the alteration or addition meets the following conditions:
 - a. Alteration: When the area of the existing structure is greater than 5,500 square feet and the area of alteration within any two year period exceeds 50% of area of the existing structure.

Exception: When the cost of installing an approved automatic fire sprinkler exceeds 5% of the cost of the alteration, with the approval of the Fire Code Official, the required automatic fire sprinkler system may be omitted.

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

Exception: When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the addition, with the approval of the Fire Code Official, the required automatic sprinkler system may be omitted.

Note: The balance of Section 903.2.8, beginning with Exceptions, is implemented as written.

Section 7-1-35. SECTION 903.3.1.1.1 AMENDED

Section 903.3.1.1.1 of the 2010 California Building Code and the 2009 International Building Code

1 is hereby amended as follows:

2 [F] Section 903.3.1.1.1 Exempt locations, is hereby amended by revising Exception 4 as follows:

3 **Exception:**

- 4 3. When approved by the fire code official, spaces or areas in telecommunications buildings
5 used exclusively for telecommunications equipment, and associated electrical power
6 distribution equipment, provided those spaces or areas are equipped throughout with an
7 automatic smoke detection system in accordance with Section 907.2 and are separated
8 from the remainder of the building by fire barriers consisting of not less than 1-hour fire-
9 barriers constructed in accordance with Section 707 or not less than 2-hour horizontal
10 assemblies constructed in accordance with Section 712, or both.

11 **Section 7-1-36. SECTION 903.4 AMENDED.**

12 Section 903.4 of the 2010 California Building code and the 2009 International Building Code is
13 hereby amended to read as follows:

14 [F] Section 903.4 Sprinkler system supervision and alarms. All valves controlling the water supply
15 for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and
16 water-flow switches on all sprinkler systems shall be electronically supervised by a listed fire alarm
17 control unit.

18 **Exceptions:**

- 19 1. Automatic sprinkler systems protecting one and two family dwellings.
20 2. Limited area systems serving fewer than 20 sprinklers.
21 3. Jockey pump control valves that are sealed or locked in the open position.
22 4. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the
23 open position.
24 5. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are
25 sealed or locked in the open position.
26

1 Note: The balance of Section 903.4, beginning with Section 903.4.1., is implemented as
2 written.

3 Section 7-1-37. SECTION 904.3.5 AMENDED.

4 Section 904.3.5 of the 2010 California Building Code and the 2009 International Building Code is
5 hereby amended to read as follows:

6 [F] Section 904.3.5 Monitoring. Where a building fire alarm or monitoring system is installed,
7 automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system
8 in accordance with NFPA 72.

9 Section 7-1-38. SECTION 905.4 AMENDED

10 Section 905.4 of the 2010 California Building Code and the 2009 International Building Code is
11 hereby amended by adding items 7 and 8 as follows:

12 [F] Section 905.4 Location of Class 1 standpipe hose connections. Class 1 standpipe hose
13 connections shall be provided in all of the following locations:

14 1. In every required stairway, a hose connection shall be provided for each floor level above
15 or below grade. Hose connections shall be located at an immediate floor level landing
16 between floors, unless otherwise approved by the fire code official. See Section
17 909.20.3.2 for additional provisions in smoke proof enclosures.

18 2. On each side of the wall adjacent to the exit opening of a horizontal exit.

19 Exception: Where floor areas adjacent to a horizontal exit are reachable from exit
20 stairway hose connections by a nozzle attached to 100 feet (30 480 mm) of hose, as
21 measured along the path of travel, a hose connection shall not be required at the
22 horizontal exit.

23 3. In every exit passageway, at the entrance from the exit passageway to other areas of the
24 building.

25 Exception: Where the floor areas adjacent to an exit passageway are reachable from exit
26

1 stairway hose connections by a 30-foot (9144mm) hose stream from a nozzle attached to
2 100 feet (30 480mm) of hose, a hose connection shall not be required at the entrance
3 from the exit passageway to other areas of the building.

- 4 4. In covered mall buildings, adjacent to each exterior public entrance to the mall and
5 adjacent to each entrance from an exit passageway or exit corridor to the mall.
- 6 5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3
7 percent slope), each standpipe shall be provided with a hose connection located either on
8 the roof or at the highest landing of a stairway with stair access to the roof. An additional
9 hose connection shall be provided at the top of the most hydraulically remote standpipe
10 for testing purposes.
- 11 6. Where the most remote portion of a non-sprinklered floor or story is more than 150 feet
12 (45 720mm) from a hose connection or the most remote portion of a sprinklered floor or
13 story is more than 150 feet (45 720mm) from a hose connection, the fire code official is
14 authorized to require that additional hose connections be provided in approved locations.
15 The distance from a hose connection shall be measured along the path of travel.
- 16 7. The centerline of the 2.5 inches (64mm) outlet shall be no less than 18 inches (457mm)
17 above and no more than 24 inches (610mm) above the finished floor.
- 18 8. Every new building with any horizontal dimensions greater than 300 feet (91 440mm)
19 shall be provided with either access doors or a 2.5 inches (64mm) outlets so that all
20 portions of the building can be reached with 150 feet (45 720mm) of hose from an access
21 door or hose outlet. Required access doors shall be located in the exterior of the building
22 and shall be accessible without the use of a ladder. The door dimensions shall be not less
23 than 3 feet (914mm) in width, and not less than 6 feet 8 inches (2032mm) in height.
24
25 These doors are for fire department access only.

26 Note: The balance of Section 905.4 is implemented as written.

1 Section 7-1-39. SECTION 907.2.13 AMENDED.

2 Section 907.2.13 of the 2010 California Building Code and the 2009 International Building Code is
3 hereby amended to read as follows:

4 [F] Section 907.2.13. High-rise building having occupied floors located more than 55 feet above
5 the lowest level of fire department access and Group I-2 occupancies having floors located more than 75
6 feet above the lowest level fire department vehicle access. High-rise buildings having occupied floors
7 located more than 55 feet above the lowest level of fire department vehicle access and Group I-2
8 occupancies having floors located more than 75 feet above the lowest level fire department vehicle
9 access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire
10 department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm
11 communication system in accordance with Section 907.5.2.2.

12 *Exceptions:*

- 13 1. *Airport traffic control towers in accordance with Section 907.2.22 and Section 412.*
- 14 2. *Open parking garages in accordance with Section 406.3.*
- 15 3. *Buildings with occupancy in Group A-5 in accordance with Section 303.1.*
- 16 4. *Low-hazard special occupancies in accordance with Section 503.1.1.*
- 17 5. *In Group I-2 and R-2-1 occupancies, the alarm shall sound at a constantly attended*
18 *location and general occupant notification shall be broadcast by the emergency*
19 *voice/alarm communication system.*

20 Note: The balance of Section 907.2.13 is implemented as written.

21 Section 7-1-40. SECTION 907.3.1 AMENDED

22 Section 907.3.1 of the 2010 California Building Code and the 2009 International Building Code is
23 hereby amended to read as follows:

24 [F] Section 907.3.1 Duct Smoke Detectors. Smoke detectors installed in ducts shall be listed for
25 the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected
26

1 to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke
2 detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall
3 perform the intended fire safety function in accordance with this code and the California Mechanical
4 Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

5 *Exception:*

6 *In occupancies not required to be equipped with a fire alarm system, actuation of a smoke*
7 *detector shall activate a visible and an audible signal in an approved location. Smoke detector*
8 *trouble conditions shall activate a visible and audible signal in an approved location and shall be*
9 *identified as air duct detector trouble.*

10 Section 7-1-41. SECTION 907.5.2.2 AMENDED

11 Section 907.5.2.2 of the 2010 California Building Code and the 2009 International Building Code
12 is hereby amended to read as follows:

13 [F] Section 907.5.2.2 Emergency voice/alarm communication system. Emergency voice/alarm
14 communication system required by this code shall be designed and installed in accordance with NFPA 72.
15 The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall
16 automatically sound an alert tone followed by voice instructions giving approved information and
17 directions for a general or staged evacuation in accordance with the building's fire safety and evacuation
18 plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet
19 above the lowest level of fire department vehicle access, and Group I-2 occupancies having floors
20 located more than 75 feet above the lowest level of fire department vehicle access, the system shall
21 operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be
22 provided throughout the building by paging zones. At a minimum, paging zones shall be provided as
23 follows:
24

- 25 1. Elevator groups
- 26 2. Exit stairways

- 1 3. Each floor
- 2 4. Areas of refuge as defined in Section 1002.1
- 3 5. Dwelling units in apartment houses
- 4 6. Hotel guest rooms or suites

5 *Exception: In Group I-1 and R-2.1 occupancies, the alarm shall sound in a constantly*
6 *attended area and a general occupant notification shall be broadcast over the overhead page.*

7 Note: The balance of Section 907.5.2.2 is implemented as written.

8 Section 7-1-42. SECTION 907.6.3.2 AMENDED

9 Section 907.6.3.2 of the 2010 California Building Code and the 2009 International Building Code
10 is hereby amended to read as follows:

11 [F] Section 907.6.3.2 High-rise buildings. High rise buildings having occupied floors located more
12 that 55 feet (16764 mm) above the lowest level of fire department vehicle access and Group I-2
13 occupancies having floors located more than 75 feet above the lowest level fire department vehicle
14 access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices
15 where provided:

- 16 1. Smoke detectors.
- 17 2. Sprinkler water-flow devices.
- 18 3. Manual fire alarm boxes.
- 19 4. Other approved types of automatic fire detection devices or suppression systems.

20 Section 7-1-43. SECTION 910.3.2.2 AMENDED.

21 Section 910.3.2.2. of the 2010 California Building Code and the 2009 International Building Code
22 is hereby amended to read as follows

23 [F] Section 910.3.2.2 Sprinkler buildings. Where installed in buildings provided with an approved
24 automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by
25 actuation of a heat-responsive device rated at least 100° F above operating temperature of the sprinkler
26 unless otherwise approved.

Section 7-1-44 CHAPTER 35 AMENDED

Chapter 35 of the 2010 California Building Code and the 2009 International Building Code is hereby amended to read as follows:

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

NFPA 13, 2010 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.3 is hereby revised as follows:

Section 6.8.3. Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½ inch inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The size of piping and the number of inlets shall be approved by the chief. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½ inch inlets shall be provided. FDC may be located within 150 feet of a private fire hydrant when approved by the chief.

Section 8.3.3.1 is hereby revised as follows:

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

1. Quick-response type as defined in 3.6.4,7
2. Residential sprinklers in accordance with the requirements of 8.4.5.
3. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
4. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing high hazard systems

1 Section 8.17.1.1.1. is hereby added as follows:

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

11 Section 8.17.2.4.6 is hereby revised as follows:

12 Section 8.17.2.4.6. Fire department connections shall be on the street side of buildings and shall
13 be located and arranged so that they are immediately adjacent to the approved fire department access
14 road and that hose lines can be readily and conveniently attached to the inlets without interference
15 from nearby objects including buildings, fence, posts, or other fire department connections.

16 Section 11.1.1.2 is hereby added as follows:

17 Section 11.1.1.2. When fire sprinkler systems are required in buildings of undetermined use
18 other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less
19 than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area.
20 Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.1.3.2 (d) curve "G". Use is
21 considered undetermined if a specific tenant/occupant is not identified at the time the permit is issued.
22 Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of
23 the occupant to upgrade the system to the required density for the new occupancy.
24

25 Section 11.2.3.1.1.1 is hereby added as follows:

26 Section 11.2.3.1.1.1. The available water supply for fire sprinkler system design shall be

determined by one of the following methods, as approved by the Fire Code Official:

1. Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;
2. Use a maximum of 40 psi, if available;
3. Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California. The result shall be adjusted in accordance with the graduated scaled found in the guidelines.

Section 22.1.3 (43) is hereby revised as follows:

Section 22.1.3 (43). Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be indicated. Static and residual hydrants that were used in the flow tests shall be shown. Flow test shall be completed within six months of the plan submittal to the authority having jurisdiction.

NFPA 13R 2010 Edition installation of sprinkler systems in residential occupancies up to and including four stories in height is hereby amended as follows:

Section 6.16.1 is hereby revised as follows:

Section 6.16.1. A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 2010 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 DBA above the average ambient sound or a minimum of 75 DBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an

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

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

5 Section 6.6.6 is hereby revised as follows:

6 Section 6.6.6. Sprinklers shall not be required in penthouse equipment rooms, elevator machine
7 rooms, concealed spaced dedicated exclusively to containing only dwelling unit ventilation equipment,
8 crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with
9 ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or
10 intended for living purposes or storage and do not contain fuel fired equipment.

11 Section 6.6.9 is hereby added as follows:

12 Section 6.6.9. Sprinklers shall not be required in attics that are not located over dwelling units.
13 When attics are separated by unit, each unit's attic space may be protected per NFPA 13D, Section
14 8.6.4.2. All other attics shall be protected per NFPA 13.

15 NFPA 13D 2010 Edition installation of sprinkler systems in one and two-family dwellings and
16 manufactured homes is hereby amended as follows:

17 Section 4.1.5 is hereby added as follows:

18 Section 4.1.5 Stock of Spare Sprinklers

19 Section 4.1.5.1. A supply of at least two sprinklers for each type shall be maintained on the
20 premises so that any sprinklers that have operated or been damaged in any way can be promptly
21 replaced.

22 Section 4.1.5.2 is hereby added as follows:

23 Section 4.1.5.2. The sprinklers shall correspond to the types and temperature ratings of the
24 sprinklers on the property.

25 Section 4.1.5.3 is hereby added as follows:
26

1 Section 4.1.5.3. The sprinklers shall be kept in a cabinet located where the temperature to which
2 they are subjected will at no time exceed 100°F (38°C).

3 Section 4.1.5.4 is hereby added as follows:

4 Section 4.1.5.4. A special sprinkler wrench shall be provided and kept in the cabinet to be used
5 in the removal and installation of sprinklers. One sprinkler wrench shall be provided for each type of
6 sprinkler installed.

7 Section 7.1.2 is hereby revised as follows:

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

10 Section 7.3.1 is hereby deleted in its entirety and replaced as follows:

11 Section 7.3.1. At least one water pressure gauge shall be installed on the riser assembly.

12 Section 7.6 is hereby deleted in its entirety and replaced as follows:

13 Section 7.6 Alarms. Exterior alarm indicating device shall be listed for outside service and audible
14 from the street from which the house is addressed. Exterior audible devices shall be placed on the front
15 or side of the structure and the location subject to final approval by the fire code official. Additional
16 interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all
17 sleeping areas with all intervening doors closed shall be a minimum of 15 dBA above the average
18 ambient sound level but not less than 75 dBA. Audible devices shall be powered from an uninterruptible
19 circuit (except for over-current protection) serving normally operated appliances in the residence.

20 *Exceptions:*

- 21
- 22 1. *When an approved water flow monitoring system is installed, interior audible devices may be*
23 *powered through the fire alarm control panel.*
 - 24 2. *When smoke detectors specified under the CBC Section 310.9 are used to sound an alarm*
25 *upon waterflow switch activation.*

26 Section 8.6.4.2 is hereby added as follows:

1 Section 8.6.4.2. All attics shall be protected with an intermediate temperature quick response
2 sprinkler which shall be located to protect attic penetrations created by the access scuttles or mechanical
3 equipment.

4 NEPA 14, 2007 Edition, Installation of Standpipe and Hose Systems is hereby amended as
5 follows:

6 Section 6.4.5.4.1 is hereby deleted in its entirety and replaced as follows:

7 Section 6.4.5.4.1. The fire department connection shall have a minimum of two 2 ½ inches,
8 internal threaded (NHS) inlets. Additional inlets shall be provided on a 250 GPM per inlet ratio to meet
9 the system demand. The inlets shall be provided with approved caps to protect the system from entry of
10 debris. The location of the FDC shall be approved and be no more than 150 feet from a public hydrant.
11 If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet
12 connections shall be painted OSHA safety red.

13 Section 7.3.1.1 is hereby deleted in its entirety and replaced as follows:

14 Section 7.3.1.1 Hose connection height Class I and III standpipe hose connections shall be
15 unobstructed and shall be located not less than 18 inches, or more than 24 inches above the finished
16 floor. Class II standpipe hose connections shall be unobstructed and shall be located not less than 3 feet
17 or more than 5 feet above the finished floor.

18 NFPA 24, 2010. Edition, installation of private fire service mains and their appurtenances is
19 hereby amended as follows:

20 Section 5.9.1.3 is hereby revised as follows:

21 Section 5.9.1.3. The fire department connection shall be of an approved type and contain a
22 minimum of two 2 ½ inch inlets. The location shall be approved and be no more than 150 feet from a
23 public fire hydrant. If acceptable to the water authority, it may be installed on the backflow assembly.
24 The supply pipe shall be painted OSHA safety red.

25 Section 5.9.1.3.1 is hereby added as follows:
26

1 Section 5.9.1.3.1. When the sprinkler density design is 500 gpm (including the interior hose
2 stream demand) or greater, or a standpipe system is included, four 2 ½ inlets shall be provided.

3 Section 5.9.1.3.2 is hereby added as follows:

4 Section 5.9.1.3.2. The fire department connection (FDC) may be located with 150 feet of a
5 private fire hydrant provide FDC connects down-stream of an aboveground sprinkler system check valve.

6 Section 6.2.1.1 is hereby added as follows:

7 Section 6.2.1.1. The closest upstream indicating valve to the riser shall be OSHA red.

8 Section 6.2.11 (5) is hereby deleted without replacement.

9 Section 6.2.11 (6) is hereby revised as follows:

10 Section 6.2.11 (5) Control valves in a one-hour fire-rated room accessible from the exterior.

11 Section 6.2.11 (7) is hereby deleted without replacement.

12 Section 6.3.3 is hereby added as follows;

13 Section 6.3.3. All post indicator valves controlling fire suppression water supplies shall be a
14 painted OSHA red.

15 Section 10.1.6.3 is hereby added as follows:

16 Section 10.1.6.3. All ferrous pipe shall be coated and wrapped. Joints shall be coated and
17 wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of
18 the tube shall extend past the joint by a minimum of 12 inches and be sealed with a 2 inch wide tape
19 approved for underground use. Galvanizing does not meet the requirements of this section.

20 Exception: 316 Stainless steel pipe and fittings.

21 Section 10.3.5.2 is hereby revised as follows:

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

24 Section 10.3.5.3 is hereby added as follows:

25 Section 10.3.5.3. All bolts used in pipe-joint assembly shall be 316 stainless steel.
26

Section 10.6.3.1 is hereby revised as follows:

Section 10.6.3.1. Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 18 inches, as measured from the interior of the exterior wall. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints or comply with 10.6.2.

Section 10.6.5 is hereby revised as follows:

Section 10.6.5. Pipe joints shall not be located under foundation footings. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain any mechanical joints.

NFPA 72, 2010 Edition National Fire Alarm Code

Section 14.2.1.2.3 is hereby revised as follows:

Section 14.2.1.2.3. If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner' designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

Section 23.8.2 Fire alarm control units is revised as follows:

Section 23.8.2. Except as permitted in 23.8.2.3, the fire alarm system components shall be permitted to share control equipment or shall be able to operate as stand-alone subsystems, but in any case, they shall be arranged to function as a single system and sent a single signal to a central, remote, or proprietary station.

Section 23.8.2.3 is hereby deleted without replacement.

Section 26.2.3.1 is hereby amended by modifying the start paragraph as follows:

Section 26.2.3.1. Supervising station customers or clients and the fire code official shall be notified in writing within 7 days of any scheduled change in service that results in signals from their property being handled by a different supervising station facility.

Section 7-1-45. SECTION 3109 ADOPTED AND AMENDED

Section 3109 of the California Building Code, and 2009 International Building Code is hereby

1 adopted and amended to read as follows:

2 Section 3109 SWIMMING POOL ENCLOSURES AND SAFETY DEVICES

3 Section 3109.1 General. Swimming pools shall comply with the requirements of this section and
4 other applicable sections of this Code.

5 Section 3109.2 Definitions. The following word and term shall, for the purpose of this section and
6 as used elsewhere in this Code, have the meaning shown herein.

7 SWIMMING POOLS. Any structure intended for swimming, recreational bathing or wading that
8 contains water over 18 inches (457.2mm) deep. This includes in-ground, above-ground and on-ground
9 pools; spas and fixed-in-place wading pools. See Section 3102B for definition of private pools and public
10 pools.

11 Section 3109.3 Public swimming pools. Public swimming pools shall comply with Chapter 31B.

12 Section 3109.4 Private swimming pools. Private swimming pools shall comply with Section
13 3109.4.1 through 3109.4.3.

14 Section 3109.41 Barrier height and clearances. The top of the barrier shall be at least 60 inches
15 (1524mm) above grade measured on the side of the barrier that faces away from the swimming pool.
16 The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm)
17 measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool
18 structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool
19 structure, and the maximum vertical clearance between the top of the pool structure and the bottom of
20 the barrier shall be 4 inches (102mm),

21 Note: The balance of Section 3109, beginning with Section 3109.4.11 is implemented as written,
22 except Section 3109.4.2 is deleted.

23 Section 7-1-46 SECTION 3405.2.4 ADDED

24 Section 3405.2 of the 2010 California Building Code and 2009 International Building Code is
25 amended by adding Section 3405.2.4 to read as follows:
26

Section 3405.2.4 Seismic evaluation and design procedures for repairs. The seismic evaluation and design shall be based on the procedures specified in the California Building Code, ASCE 31 Seismic Evaluation of Existing Buildings (for evaluation only) or ASCE 41 Seismic Rehabilitation of Existing Buildings. The procedures contained in Appendix A of the International Existing Building Code shall be permitted to be used as specified in Section 3403.5.1.1.3.

Section 3405.2.4.1 Compliance with CBC level seismic forces. Where compliance with the seismic design provisions of the California Building Code is required, the procedures shall be in accordance with one of the following:

1. One-hundred percent of the values in the California Building Code. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary", the values of R_7 , Ω_0 , and C_d for analysis in accordance with Chapter 16 of the California Building Code shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it is demonstrated that the structural system will provide performance equivalent to that of a "Detailed", "Intermediate" or "Special" system
2. Compliance with ASCE 41 using both BSE-1 and BSE-2 earthquake hazard levels and the corresponding performance levels in Table 3405.2.4.1.

TABLE 3405.2.4.1

PERFORMANCE CRITERIA FOR CBC LEVEL SEISMIC FORCES

OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL
I	Life Safety (LS)	Collapse Prevention (CP)
II	Life Safety (LS)	Collapse Prevention (CP)
III	Note a	Note a
IV	Immediate Occupancy (IO)	Life Safety (LS)

- a. Acceptance criteria for Occupancy Category III shall be taken as 80 percent of the acceptance criteria specified for Occupancy Category II performance levels, but

1 not need be less than the acceptance criteria specified for Occupancy Criteria IV
2 performance levels.

3 Section 3405.2.4.2 Compliance with reduced CBC level seismic forces. Values where seismic
4 evaluation and design is permitted to meet reduced California Building Code seismic force levels, the
5 procedures used shall be as in accordance with one of the following:

- 6 1. The California Building Code using 75 percent of the prescribed forces. Values OF $R_7, \Omega_0,$
7 and C_d used for analysis shall be as specified in Section 3405.2.4.1., Item 1.
- 8 2. Structures or portions of structures that comply with the requirements of the applicable
9 chapter in Appendix A of the International Existing Building Code as specified in Items 2.1
10 through 2.5 below shall be deemed to comply with this section.

11 2.1 The seismic evaluation and design of unreinforced masonry bearing wall buildings
12 in Occupancy Category I and II are permitted to be based on the procedures
13 specified in Appendix Chapter A1.

14 2.2 Seismic evaluation and design of the wall anchorage system in reinforced concrete
15 and reinforced masonry wall buildings with flexible diaphragms in Occupancy
16 Category I or II are permitted to be based on the procedures specified in Appendix
17 Chapter A2.

18 2.3 Seismic evaluation and design of cripple walls and sill plate anchorage in
19 residential buildings of light-frame wood construction in Occupancy Category I or
20 II are permitted to be based on the procedures specified in Appendix Chapter A3.

21 2.4 Seismic evaluation and design of soft, weak, or open-front walls conditions in
22 multiunit residential buildings of wood construction in Occupancy Category I or II
23 are permitted based on the procedures specified in Appendix Chapter A4.

24 2.5 Seismic evaluation and design of concrete buildings in all Occupancy Categories
25 are permitted to be based on the procedures specified in Appendix Chapter A5.
26

- 1 3. Compliance with ASCE 31 based on the applicable performance level as shown in Table
 2 3405.2.4.2. It shall be permitted to use the BSE-1 earthquake hazard level as defined in
 3 ASCE 41 and subject to the limitations in item 4 below.
- 4 4. Compliance with ASCE 41 using the BSE-1 Earthquake Hazard Level defined in ASCE 41
 5 and the performance level as shown in Table 3405.2.4.2. The design spectral response
 6 acceleration parameters S_{xS} and S_{x1} specified in ASCE 41 shall not be taken less than 75
 7 percent of the respective design spectral response acceleration parameters S_{DS} and S_{D1}
 8 defined by the California Building Code and its reference standards.

9 **TABLE 3405.2.4.2**

10 **PERFORMANCE CRITERIA FOR REDUCED CBC**

11 **LEVEL SEISMIC FORCES**

OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 31	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL
I	Life Safety (LS)	Life Safety (LS)
II	Life Safety (LS)	Life Safety (LS)
III	Note a, Note b	Note a
IV	Immediate Occupancy (IO)	Immediate Occupancy (IO)

- 12
- 13
- 14
- 15
- 16
- 17
- 18 a. Acceptance criteria for Occupancy Category III shall be
 19 taken as 80 percent of the acceptance criteria specified
 20 for Occupancy Category II performance levels, but need not
 21 be less than the acceptance criteria specified for
 22 Occupancy Category IV performance levels.
- 23 b. For Occupancy Category III, the ASCE screening phase
 24 checklists shall be based on the life safety performance
 25 level.
- 26

24 ///

25 ///

26 ///

Section 3405.2.4.3 Referenced Standards

Standard Reference Number	Title	Reference in Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3405.2.4.1 TABLE 3405.2.4.1. 3405.242 TABLE 3405.2.4.2
ASCE 41-06 Including Supplement NO. 1	Seismic Rehabilitation of Existing Buildings	3405.2.4.1 TABLE 3405.2.4.1 3405.2.4.2 TABLE 3405.2.4.2.

Section 7-1-47. TABLE R301.1(1) AMENDED

Table R301.2 (1) is revised to read

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^g	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARD ^g	AIR FREEZING INDEX ^e	MEAN ANNUAL TEMP ^f
	SPEED ^a (mph)	Topographic effects ^b		Weathering ^a	Frostline Depth ^d	Termite ^c					
Zero	85	NO	D ₂ or E	Negligible	12-24 ^d	Very Heavy	43	NO	See Table A	0	60

- a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this Code. The weathering column shall be filled in with the weathering index (i.e. "negligible", "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from the ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- b. The frost line depth may require deeper footings than indicated in Figure R403.1 (1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite

1 damage.

- 2 d. The jurisdiction shall fill in this part of the table with the wind speed from the basic
3 wind speed map [Figure R301.2(4)] Wind exposure category shall be determined on
4 a site-specific basis in accordance with Section R301.2.1.4.
- 5 e. Temperatures shall be permitted to reflect local climates or local weather experience
6 as determined by the Building Official.
- 7 f. The jurisdiction shall fill in this part of the table with the seismic design category
8 determined from Section R301.2.2.1.
- 9 g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's
10 entry into the National Flood Insurance Program (date of adoption of the first code
11 or ordinance for management of flood hazard areas), (b) the date(s) of the Flood
12 Insurance Study and (c) the panel numbers and dates of all currently effective
13 FIRMs and FBFMs or other flood hazard map adopted by the authority having
14 jurisdiction, as amended.
- 15 h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1,
16 R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from
17 the effects of ice damming, the jurisdiction shall fill in this part of the table with
18 "YES". Otherwise, the jurisdiction shall fill in this part of the table with "NO".
- 19 i. The jurisdiction shall fill in this part of the table with the 100-year return period air
20 freezing index (BF-days) from Figure R403.3 (2) or from the 100-year (99%) value
21 on the National Climatic Data Center data table "Air Freezing Index-USA Method
22 (Base 32°F) at www.ncdc.noaa.gov/fpsf.html.
- 23 j. The jurisdiction shall fill in this part of the table with the mean annual temperature
24 from the National Climatic Data Center data table "Air Freezing Index-USA Method
25 (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.
26

k. In accordance with Section R301.2.1.5 where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES". Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

TABLE A

Community Name	Community Number	Located on Panels	Initial NFIP Map Date	Initial Firm Date	Most Recent Firm Panel Date
Orange County Unincorporated Areas	060212	28, 29, 33, 34 ¹ , 38, 42, 55 ¹ , 58, 59 ¹ , 61, 62, 63, 64, 66, 67 ¹ , 68, 69, 90, 95, 108, 112, 113, 114, 116, 117, 118, 129, 136, 137, 138, 151, 153, 154, 156, 157, 158, 159, 162, 164, 166, 167, 168, 169, 180, 185, 190, 195, 225 ¹ , 226, 227, 229, 231, 233, 234, 241, 242, 251, 256, 264, 267, 269, 277, 278, 281, 282, 286, 294, 305, 306, 307, 308 ¹ , 309, 315, 316, 317, 326, 327, 328, 329 ¹ , 335, 336, 337, 338, 339, 345, 375 ¹ , 377, 404, 406 ¹ , 407, 408, 409, 412, 416, 417, 419, 426, 428, 432, 434, 436, 438, 441, 442, 444, 451, 452, 453, 454, 460, 465, 470, 500, 526, 527 ¹ , 529 ¹ , 535 ¹	1/10/75	9/14/79	12/3/09

¹ PANEL NOT PRINTED – NO SPECIAL FLOOD HAZARD AREAS

Section 7-1-48. SECTION R313.1 AMENDED

Section R313.1 of the 2010 California Residential Code is hereby amended to read as follows:

Section R313.1. Townhouse Automatic Fire Sprinkler Systems. Fire sprinkler systems shall be provided as required under Section 903.2.8 of the California Building Code with amendments by County Ordinance.

Note: The balance of Section R313.1, beginning with Section R313.1.1. is implemented as written.

Section 7-1-49. SECTION R313.2 AMENDED

Section R313.2 of the 2010 California Residential Code is hereby amended to read as follows:

Section R313.2. One and Two Family Dwellings Automatic Fire Sprinkler Systems. Fire sprinkler systems shall be provided as required under Section 903.2.8 of the California Building Code with

1 amendments by the County Ordinance.

2 Note: The balance of Section R313.2, beginning with Section R313.2.1 is implemented as
3 written.

4 Section 7-1-50. SECTION R403.1.3 AMENDED

5 Section R403.1.3 of the 2010 California Residential Code is hereby amended to read as follows:

6 Section R403.1.3 Seismic Reinforcing. Concrete footings located in Seismic Design Categories D₀,
7 D₁, and D₂ as established in Table R301.2(1), shall have minimum reinforcement. Bottom reinforcement
8 shall be located a minimum of 3 inches (76mm) clear of the bottom of the footing.

9 In Seismic Design Categories D₀, D₁, D₂ where a construction joint is created between a concrete
10 footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet
11 (1219mm) on center. The vertical bar shall extend to 3 inches (76mm) clear of the bottom of the
12 footing, have a standard hook and extend a minimum of 14 inches (357mm) into the stem wall.

13 In Seismic Design Categories D₀, D₁ and D₂, where a grouted masonry stem wall is supported on
14 a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet
15 (1219mm) on center. The vertical bar shall extend to 3 inches (76mm) clear of the bottom of the
16 footing and have a standard hook.

17 In Seismic Design Categories D₀, D₁ and D₂ masonry stem walls without solid grout and vertical
18 reinforcing are not *permitted*.

19 Note: The balance of Section R403.1.3, beginning with Section R403.1.3.1 is implemented as
20 written.

21 Section 7-1-51. SECTION R405.1 AMENDED

22 Section R405.1 of the 2010 California Residential Code is hereby amended to read as follows:

23 Section R405.1 Concrete or masonry foundations. Drains shall be provided around all concrete or
24 masonry foundations that retain earth and enclose habitable or usable spaces located below grade.
25 Drainage tiles, gravel, or crushed stone rains, perforated pipe or other approved systems or materials
26

1 shall be installed at or below the area to be protected and shall discharge by gravity or mechanical
2 means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot
3 (305mm) beyond the outside edge of the footing and 6 inches (152mm) above the top of the footing
4 and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be
5 protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a
6 minimum of 2 inches (51mm) of washed gravel or crushed rock at least one sieve size larger than the tile
7 joint opening or perforation and covered with not less than 6 inches (152mm) of the same material.

8 Note: The balance of Section 405.1, beginning with Section 405.1.1 is implemented as written.

9 Section 7-1-52. SECTION R902.1 REPLACED

10 Section R902.1 of the 2010 California Residential Code is hereby amended to read as follows:

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

15 *Exceptions:*

- 16 1. *All new buildings and additions shall be minimum Class B roof.*
- 17 2. *Re-roofing, repairs or replacements on buildings shall be of the same classification as the*
18 *original roof except that non-rated and Class C roofs shall be a minimum Class C.*
- 19 3. *When any re-roofing, repair or replacement to an existing roof exceeds 40 percent of the roof*
20 *area, the entire roof shall be replaced with a minimum Class B roof.*
- 21 4. *Roofing on buildings located within Wildland – Urban Interface Fire Area shall be Class A and*
22 *meet additional requirements of Chapter 7A of the California Building Code.*

23 For the design of fasteners for tile roofing materials, the unincorporated area of the County
24 shall be considered as a "Special Wind Region" with a basic wind speed over 80 miles per hour.

25 Note: The balance of Section R902.1, beginning with Section R902.1.1 is implemented as
26

written.

1
2 Section 7-1-53. CHAPTER 44 AMENDED

3 Chapter 44 Referenced Standards of the 2010 California Residential Code is hereby adopted in its
4 entirety with the same amendments for Chapter 35 Reference Standards of the 2010 California Building
5 Code.

6 Section 7-1-54. SECTION 202 AMENDED

7 Section 202 of the 2010 California Green Building Standards Code is hereby amended to add a
8 definition to read as follows:

9 Sustainability. Consideration of present development and construction impacts on the
10 community, the economy, and the environmental without compromising the needs of the future.

11 Section 7-1-55. SECTION 4.304.1 AMENDED

12 Section 4.304.1 of the 2010 California Green Building Standards Code is hereby amended to read
13 as follows;

14 Section 4.304.1. Irrigation controllers. Automatic irrigation system controllers for landscaping
15 provided and installed at the time of final inspection and shall comply with the following:

- 16 1. Controllers shall be weather or soil moisture-based irrigation controllers that automatically
17 adjust irrigation in response to changes in plants' needs as weather conditions change.
18 2. Weather-based controllers without integral rain sensors or communication systems that
19 account for local rainfall shall have a separate wired or wireless rain sensor which connects or
20 communicates with the controller(s). Soil moisture-based controllers are not required to have
21 rain sensor input.
22

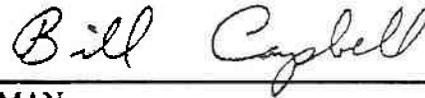
23 Note: More information regarding irrigation controller function and specifications is available
24 from the Irrigation Association.
25
26

This ordinance shall take effect and be in full force thirty (30) days from and after its passage and before the expiration of fifteen (15) days after the passage thereof, shall be published once in an adjudicated newspaper in the County of Orange.

THE FOREGOING was **PASSED** and **ADOPTED** by the following vote of the Orange County Board of Supervisors on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL

NOES:
EXCUSED:
ABSTAINED:



CHAIRMAN

STATE OF CALIFORNIA)
) ss:
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Ordinance was duly and regularly adopted by the Orange County Board of Supervisors.

IN WITNESS WHEREOF, I have hereto set my hand and seal.



DARLENE J. BLOOM
Clerk of the Board.
County of Orange, State of California



Ordinance No.: 11-001
Agenda Date: 01/25/2011
Item No.: 48



I certify that the foregoing is a true and correct copy of the Ordinance adopted by the Board of Supervisors, Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

1 Building Official of the County of Orange shall have the authority for enforcement of the Code and the
2 responsibility for making interpretations of the rules, for deciding upon the approval of equipment,
3 materials and wiring methods as set forth in the National Electrical Code, and for granting the special
4 permission contemplated in a number of the rules.

5 Whenever the term "authority having jurisdiction" is used in this Code, it shall mean the "Building
6 Official" of the County of Orange.

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

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

14 Section 7-2-3. Section 90-10 added.

15 **Section 90-10. APPLICATION TO EXISTING ELECTRICAL SYSTEMS AND EQUIPMENT.**

16 (a) **Additions, Alterations or Repairs.** Additions, alterations or repairs may be made to an
17 electrical system and equipment without requiring the existing electrical system and
18 equipment to comply with all the requirements of this Code, provided the addition,
19 alternation or repair conforms to that required for a new electrical system and equipment
20 and provided further that no hazard to life, health or safety will be created by such
21 additions, alterations or repairs.

22 Additions or alterations shall not be made to an existing electrical system or equipment
23 which will cause the existing electrical system or equipment to be in violation of the
24 provisions of this Code nor shall such additions or alterations cause the existing electrical
25 system or equipment to become unsafe. An unsafe condition shall be deemed to have been
26 created if an addition or alternation will create a fire hazard, will reduce required fire

1 resistance, will cause the electrical system or equipment to become overloaded or exceed
2 their rated capacities, will create a health hazard or will otherwise create conditions
3 dangerous to human life.

4 Minor additions, alterations and repairs to existing electrical system and equipment may be
5 made in accordance with the law in effect at the time the original installation was made,
6 when approved by the Building Official.

7 (b) Existing Installations. Electrical systems and equipment lawfully in existence at the time of
8 the adoption of this Code may have their use, maintenance or repair continued if the use,
9 maintenance or repair is in accordance with the original design and a hazard to life, health
10 or property has not been created by such electrical system and equipment.

11 (c) Changes in Building Occupancy. Electrical system and equipment which are a part of any
12 building or structure undergoing a change in use or occupancy, as defined in the Building
13 Code, shall comply with the requirements of this Code which are applicable to the new use
14 or occupancy.

15 (d) Maintenance. All electrical system and equipment, both existing and new, and all parts
16 thereof shall be maintained in a proper operating condition in accordance with the original
17 design and in a safe and hazard-free condition. All devices and safeguards which are
18 required by this Code shall be maintained in conformance with this Code. The owner or
19 designated agent shall be responsible for the maintenance of the electrical system and
20 equipment. To determine compliance with this section, the Building Official may cause an
21 electrical system to be re-inspected.

22 (e) Moved Buildings. Electrical systems and equipment which are a part of buildings or
23 structures moved into or within this jurisdiction shall comply with the provisions of this Code
24 for new installations.

25 Section 7-2-4. Section 90-11 added.

26 Section 90-11. UNDERGROUND UTILITIES REQUIRED.

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

4 (1) The property is to be developed with a new or relocated main building;

5 (2) The remodeling, alteration, or addition to an existing main building, exceeds 50
6 percent of the value and/or area of the existing building;

7 (3) A residential building or use is converted to any nonresidential use or purpose.

8 For purposes of this section, the term "main building" shall mean a building in which is conducted
9 the principal use of the lot or building site on which it is located.

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

13 If it is determined that practical difficulties, or unreasonable hardships inconsistent with the
14 purposes of this chapter and unique to a particular parcel of property, would result from the literal
15 interpretation of this section, the Building Official may waive, modify or delay the imposition of any
16 underground requirement imposed pursuant to this section upon written application of any affected
17 property owner. The Building Official shall notify the applicant of his decision in writing by certified mail.
18 If the Building Official determines to delay the installation of required underground utilities, he may
19 require a recorded agreement guaranteeing the future performance of the work, together with adequate
20 performance security enforceable by the County in the form of a cash deposit, bond, letter of credit, or
21 other instrument satisfactory to the County Counsel.

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

25 Any person dissatisfied with the decision of the Building official may file an appeal with the Board
26 of Supervisors within fifteen (15) days after the decision of the Building Official is deposited in the mail

1 by filing a written statement setting forth the reasons for said appeal with the County Clerk. The Board
2 of Supervisors may overrule, modify, or affirm the decision of the Building Official.

3 Section 7-2-5. Section 90-12 added.
4

5 Section 90-12. CONFLICTING PROVISIONS.

6 In the event of any differences between the California Code and the National Code, the text of
7 the California Code shall govern. Where a specific provision varies from a general provision, the specific
8 provision shall apply.

9 When, in any specific case, different sections of this Code specify different materials, methods of
10 construction or other requirements, the most restrictive shall govern.

11 Section 7-2-6. Section 90-13 added.

12 Section 90-13. ALTERNATE MATERIALS, METHOD OF DESIGN AND METHODS OF
13 CONSTRUCTION.

14 (a) The provisions of this Code are not intended to prevent the use of any material, method of
15 design or method of construction not specifically prescribed by this Code, provided an
16 alternate has been approved and its use authorized by the Building Official.

17 The Building Official may approve an alternate, provided the Building Official finds that the
18 proposed design is satisfactory and complies with the provisions of this Code and that the
19 material, method or work offered is, for the purpose intended, at least the equivalent of the
20 prescribed in this Code in suitability, strength, effectiveness, fire resistance, durability and
21 safety.

22 The Building Official shall require that sufficient evidence or proof be submitted to
23 substantiate claims that may be made regarding its use. The details of an action granting
24 approval of an alternate shall be recorded and entered in the files of the code enforcement
25 agency.

26 (b) Modifications. Whenever there are practical difficulties involved in carrying out the

1 provisions of this Code, the Building Official may grant modifications for individual cases.
2 The Building Official shall first find that a special individual reason makes the strict letter of
3 this Code impractical and the modification is in conformity with the intent and purpose of
4 this Code and that such modification does not lessen health, life and fire-safety
5 requirements. The details of actions granting modifications shall be recorded and entered in
6 the files of the code enforcement agency.

- 7 (c) Tests. Whenever there is insufficient evidence of compliance with the provisions of this Code
8 or evidence that materials or construction do not conform to the requirements of this Code,
9 the Building Official may require tests as evidence of compliance to be made at no expense
10 to this jurisdiction.

11 Test methods shall be as specified by this Code or by other recognized test standards. In
12 the absence of recognized and accepted test methods, the Building Official shall determine
13 test procedures.

14 All tests shall be made by an approved agency. Reports of such tests shall be retained by
15 the Building Official for the period required for the retention of public records.

16 Section 7-2-7. Section 90-14 added.

17 **Section 90-14. POWERS AND DUTIES OF BUILDING OFFICIAL.**

- 18 (a) General. The Building Official is hereby authorized and directed to enforce all the provisions
19 of this Code. For such purposes, the Building Official shall have the powers of a law
20 enforcement officer.

21 The Building Official shall have the power to render interpretations of this Code and to
22 adopt and enforce rules and regulations supplemental to this Code as may be deemed
23 necessary in order to clarify the application of the provisions of this Code. Such
24 interpretations, rules and regulations shall be in conformity with the intent and purpose of
25 this Code.

- 26 (b) Deputies. In accordance with prescribed procedures and with the approval of the appointed

1 authority, the Building Official may appoint a chief electrical inspector and other related
2 technical officers and inspectors and other employees as shall be authorized from time to
3 time.

4 (c) Right of Entry. When necessary to make an inspection to enforce any of the provisions of
5 this Code, or when the Building Official has reasonable cause to believe that there exists in
6 any building or upon a premises a condition which is contrary to or in violation of this Code
7 which makes the building or premises unsafe, dangerous or hazardous, the Building Official
8 may enter the building or premises at all reasonable times to inspect or to perform the
9 duties imposed by this Code, provided that if such building or premises be occupied, that
10 credentials be presented to the occupant and entry requested. If such building or premises
11 be unoccupied, the Building Official shall first make a reasonable effort to locate the owner
12 or other persons having charge or control of the building or premises and request entry.
13 Should entry be refused, the Building Official shall have recourse to the remedies provided
14 by law to secure entry.

15 (d) Stop Orders. When work is being done contrary to the provisions of this Code, the Building
16 Official may order the work stopped by notice in writing served on persons engaged in the
17 doing or causing such work to be done, and such persons shall forthwith stop such work
18 until authorized by the Building Official to proceed with the work.

19 (e) Authority to Disconnect Utilities. The Building Official or the Building Official's authorized
20 representative shall have the authority to disconnect a utility service or energy supplied to
21 the building, structure or building service equipment therein regulated by this Code or the
22 technical codes in case of emergency where necessary to eliminate an immediate hazard to
23 life or property. The Building Official shall whenever possible notify the serving utility, the
24 owner and occupant of the building, structure or building service equipment of the decision
25 to disconnect prior to taking such action, and shall notify such serving utility, owner and
26 occupant of the building, structure or building service equipment, in writing, of such

1 disconnection immediately thereafter.

2 (f) Authority to Condemn Building Service Equipment. When the Building Official ascertains that
3 building service equipment regulated in the technical codes has become hazardous to life,
4 health or property, or has become insanitary, the Building Official shall order in writing that
5 such equipment either be removed or restored to a safe or sanitary condition, as
6 appropriate. The written notice itself shall fix a time limit for compliance with such order.

7 Defective building service equipment shall not be maintained after receiving such notice.

8 When such equipment or installation is to be disconnected, a written notice of such
9 disconnection and causes therefor shall be given within 24 hours to the serving utility, the
10 owner and occupant of such building, structure or premises.

11 When any building service equipment is maintained in violation of the technical codes and in
12 violation of a notice issued pursuant to the provisions of this section, the Building Official
13 shall institute appropriate action to prevent, restrain, correct or abate the violation.

14 (g) Connection after Order to Disconnect. Persons shall not make connections from an energy,
15 fuel or power supply nor supply energy or fuel to building service equipment which has
16 been disconnected or ordered to be disconnected by the Building Official or the use of which
17 has been ordered to be discontinued by the Building Official until the Building Official
18 authorizes the reconnection and use of such equipment.

19 (h) Liability. The Building Official charged with the enforcement of this Code and the technical
20 codes, acting in good faith and without malice in the discharge of his duties, shall not
21 thereby be rendered personally liable for damage that may accrue to persons or property as
22 a result of an act or omission in the discharge of the assigned duties. A suit brought against
23 the Building Official or employee because of such act or omission performed by the Building
24 Official or employee in the enforcement of the provisions of such codes or other pertinent
25 laws or ordinances implemented through the enforcement of this Code or enforced by the
26 code enforcement agency shall be defended by this jurisdiction until final termination of

1 such proceedings, and any judgment resulting therefrom shall be assumed by this
2 jurisdiction.

3 This Code shall not be construed to relieve from or lessen the responsibility of any person
4 owning, operating or controlling a building, structure or building service equipment therein
5 for damages to persons or property caused by defects, nor shall the code enforcement
6 agency or its parent jurisdiction be held as assuming such liability by reason of the
7 inspections authorized by this Code or permits or certificates issued under this Code.

- 8 (i) Cooperation of Other Officials and Officers. The Building Official may request, and shall
9 receive, the assistance and cooperation of other officials of this jurisdiction so far as is
10 required in the discharge of the duties required by this Code or other pertinent laws or
11 ordinances.

12 Section 7-2-8. Section 90-15 added.

13 Section 90-15. UNSAFE ELECTRICAL SYSTEMS OR EQUIPMENT.

14 Electrical systems or equipment regulated by this Code which are unsafe, or which constitute a
15 fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe. Use of
16 electrical systems or equipment regulated by this Code constituting a hazard to safety, health or public
17 welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage
18 or abandonment is, for the purpose of this section, an unsafe use.

19 Unsafe electrical systems or equipment are hereby declared to be public nuisances and shall be
20 abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in
21 Section 7-1-16-UNSAFE BUILDING, NUISANCE, and NOTICE. ADMINISTRATIVE HEARING, APPEAL – of
22 the Orange County Codified Ordinances. As an alternative, the Building Official or other employee or
23 official of this jurisdiction as designated by the governing body may institute other appropriate action to
24 prevent, restrain, correct or abate the violation.

25 Section 7-2-9. Section 90-16 added.

26 Section 90-16. PERMITS.

1 (a) Required Permits. No electrical equipment shall be installed nor electrical work performed
2 within or on any building, structure or premises, publicly or privately owned, in the unincorporated area
3 of Orange County, nor shall any alteration or addition be made in any such existing equipment without
4 securing a permit therefor, before such work is commenced, from the Building Official except as
5 provided in this Article and except that no permit will be required to execute any of the following classes
6 of electrical work:

7 (1) Minor repair work, such as the replacement of lamps and connection of portable
8 electrical equipment to suitable permanently installed receptacles.

9 (2) Repair or replacement of fixed motors, transformers or fixed approved appliances of the
10 same type and rating in the same location.

11 (3) Temporary decorative lighting.

12 (4) Repair or replacement of current-carrying parts of any switch, contactor or control
13 device.

14 (5) Reinstallation of attachment plug receptacles, but not the outlets therefor.

15 (6) Repair or replacement of any overcurrent device of the required capacity in the same
16 location.

17 (7) Repair or replacement of electrodes or transformers of the same size and capacity for
18 signs or gas tube systems.

19 (8) Taping joints.

20 (9) Removal of electrical wiring.

21 (10) Temporary wiring for experimental purposes in suitable experimental laboratories.

22 (11) The wiring for temporary theater, motion picture or television stage sets.

23 (12) Electrical wiring, devices, appliances, apparatus or equipment operating at less than
24 25 volts and not capable of supplying more than 50 watts of energy.

25 (13) Low-energy power, control and signal circuits of Class II and Class III as defined in
26 this Code.

1 (14) Installations used by electrical supply, railway or communication utilities in the
2 exercise on their function as a utility, and work located primarily in a public way.

3 (15) The installation, alteration or repair of electrical equipment installed by or for an
4 electrical supply agency for the use of such agency in the generation, transmission, distribution or
5 metering of electricity.

6 (16) The installation of radio controlled relays on privately-owned air conditioning
7 equipment and electric heaters designed for the purposes of energy conservation through utility
8 company established electrical load management programs provided that:

9 (A) Prior to installation, the OC Public Works/Building Inspection Division shall
10 approve the specifications for the installation of the relays;

11 (B) The relay devices shall be tested and labeled by Underwriters' Laboratories, Inc.;

12 (C) The relay devices shall be installed and maintained by the serving utility
13 company or its contractors.

14 (17) Other incidental work of a minor nature may be exempt from the provisions of this
15 Code upon the determination of the Building Official.

16 Exemption from the permit requirements of this Code shall not be deemed to grant
17 authorization for any work to be done in any manner in violation of the provisions of this Code or any
18 other laws or ordinances of this jurisdiction.

19 (b) Application. Application for a permit to perform the work shall be made in writing to the OC
20 Public Works, describing said work Plans, calculations of load for service, feeders and branch circuits,
21 specifications and schedules may be required to determine whether the installation as described will be
22 in conformity with the requirements of the Code. If it is found that the installation as described will
23 conform to all legal requirements, and if the applicant has complied with the provisions of this Code, a
24 permit for such installation shall be issued. No deviation may be made from the installation described in
25 the permit and plan without the written approval of the Building Official.

26 (c) Issuance. It shall be the duty of the Building Official to issue permits for electrical

1 installations and wiring under the provisions of this Code when the applicant for such permit shall have
2 complied with all of the requirements hereof.

3 (d) Annual Permits. In lieu of an individual electrical permit for each installation or alteration on
4 commercial or industrial buildings, an annual permit may be issued to any person, firm or corporation
5 for the purpose of installing, altering and maintaining electrical wiring or equipment in or on buildings or
6 premises owned or occupied by the applicant for such permits. The application for this annual permit
7 shall be made in writing to the OC Public Works, and shall contain description of the premises on which
8 the work is to be done under the permit. Within fifteen (15) days following the end of each calendar
9 month, the person, firm or corporation to which an annual permit has been issued shall transmit to the
10 OC Public Works a duplicate copy of the record of electrical work done.

11 (e) Expiration. Every permit issued by the Building Official under the provisions of this Code
12 shall expire by limitation and become null and void if the building or work authorized by such permit is
13 not commenced within one hundred eighty (180) days from the date of such permit, or if the building or
14 work authorized by such permit is suspended or abandoned at any time after the work is commenced
15 for a period of one hundred eighty (180) days. Before such work can be commenced or recommenced,
16 a permit shall first be extended or re-issued.

17 (1) Requesting extension of an unexpired permit: Any permittee holding an unexpired
18 permit or a permit which has expired for less than 180 days may apply for an extension of time within
19 which permittee may commence work under that permit when he/she is unable to commence or
20 recommence work within the time required by this section for good and satisfactory reasons. The
21 Building Official may extend the time for action by the permittee for a period not exceeding one
22 hundred eighty (180) days upon written request by the permittee showing that circumstances beyond
23 the control of the permittee have prevented action from being taken. Permits extended in this manner
24 shall not be subject to new regulations adopted after issuance of the permit. Fees for time extension
25 shall be as established by the Board of Supervisors. Fees shall not be required for first extension.

26 (2) Requesting re-issuance of a permit which has been expired for 180 days or more: Any

1 permittee holding a permit which has been expired for 180 days or more may apply for re-issuance of
2 the permit subject to compliance with current regulations and payment of full plan check and permit
3 fees. Plans must be re-submitted for plan check. Portions of the structure which have been built under
4 the expired permit shall not be subject to current regulations.

5 (3) For the purpose of permit extension or renewal, multiple permits of the same structure
6 such as building, foundation, retaining wall, plumbing, mechanical, and electrical permits shall be
7 considered as one permit. Extension of building permit shall include extension of ancillary permits of the
8 same structure. Each separate permit with work completed inspected and approved entirely prior to
9 suspension or abandonment shall not be subject to extension or re-issuance.

10 (f) Change of Contractor or of Ownership. A permit issued hereunder shall expire upon a
11 change of ownership or a change of contractor regarding the building, structure or grading for which
12 said permit was issued if the work thereon has not been completed, and a new permit shall be required
13 for the completion of the work. If the provisions of section (e) above are not applicable and if no
14 changes have been made to the plans and specifications last submitted to the Building Official, no
15 charge, other than a "name change" and a permit issuance fee, shall be made for the issuance of the
16 new permit under such circumstances. If, however, changes have been made to the plans and
17 specifications last submitted to the Building Official, a fee as established by the Board of Supervisors
18 shall be charged to the permit application.

19 Section 7-2-10. Section 90-17 added.

20 Section 90-17. FEES AND PLAN REVIEW.

21 (a) Fees shall be established by the Board of Supervisors.

22 (b) The fees required in this section must be paid for each electrical installation for which a
23 permit is required by this Code.

24 (c) No permit shall be issued to any person, firm or corporation unless fees for permits or
25 additions to permits are paid in full. When an electrical plan is required to be submitted, a plan check
26 fee shall be paid at the time of submittal.

1 (d) Expiration of Plan Review. Application for which no permit is issued within 180 days following
2 the date of application shall expire by limitation, and plans and other data submitted for review may
3 thereafter be returned to the applicant or destroyed by the Building Official. The Building Official may
4 extend the time for action by the applicant for a period of 180 days on request by the applicant showing
5 that circumstances beyond the control of the applicant have prevented action from being taken. No
6 application shall be extended more than once. In order to renew action on an application after
7 expiration, the applicant shall resubmit plans and pay a new plan review fee.

8 (e) Additional Plan Review Fees. Where plans are incomplete or changed so as to require
9 additional plan checking, an additional plan checking fee as established by the Board of Supervisors
10 shall be paid. Said fee may be waived when in the opinion of the Building Official the additional fee is
11 not warranted.

12 (f) Failure to take out a permit and to pay fees therefor before commencing work shall be
13 deemed a violation of this Code, except when it can be proven to the satisfaction of the Building Official
14 that an emergency existed which made it impractical to first obtain the permit. Double the amount of
15 fees shall be assessed for work commenced before a permit is issued. Payment of a double fee shall not
16 relieve any person from fully complying with the requirements of this Code nor from any other penalties
17 prescribed herein.

18 (g) Investigation Fee. An investigation fee as established by the Board of Supervisors may be
19 charged by the Building Official whenever work for which a permit is required by this Code has been
20 commenced without first obtaining said permit, except in the case of emergency work. This fee shall be
21 paid and the investigation shall be made prior to the issuance of any permit for said work. An
22 investigation fee may be charged for any investigation of a building, structure, work reports, certification
23 or any other related work requested by an owner or authorized agent of such owner.

24 (h) Fees for Annual Permits shall be paid at the time such permits are issued. In addition, fees
25 for all new work installed under such permit since the date of the previous inspection shall be paid, in
26 accordance with the fee schedule at the time the annual permit is issued.

1 (i) Fees for Additional Inspections shall be as established by the Board of Supervisors.

2 (j) Fee Refunds. The Building Official may authorize refunding of any fee paid hereunder which
3 was erroneously paid or collected.

4 (k) Validity of Permit. The issuance of a permit or approval of plans, specifications and
5 computations shall not be construed to be a permit for, or an approval of, any violation of any of the
6 provisions of this Code, or of any other ordinance of the jurisdiction. Permits presuming to give
7 authority to violate or cancel the provisions of this Code or other ordinances of the jurisdiction shall not
8 be valid.

9 The issuance of a permit based upon plans, specifications and other data shall not prevent
10 the Building Official from thereafter requiring the correction of errors in said plans, specifications and
11 other data, or from preventing building operations being carried on thereunder when in violation of
12 these codes or of any other ordinances of this jurisdiction.

13 (l) Suspension or Revocation. The Building Official may, in writing, suspend or revoke a permit
14 issued under the provisions of this Code when the permit is issued in error or on the basis of incorrect
15 information supplied, or in violation of an ordinance or regulation or the provisions of this Code.

16 Section 7-2-11. Section 90-18 added.

17 Section 90-18. INSPECTION.

18 (a) General. All electrical systems and equipment for which a permit is required shall be subject
19 to inspection by the Building Official, and the electrical system shall remain accessible and exposed for
20 inspection purposes until approved by the Building Official.

21 Approval as a result of an inspection shall not be construed to be an approval of a violation
22 of the provisions of this Code or of other ordinances of the jurisdiction. Inspections presuming to give
23 authority to violate or cancel provisions of this Code or of other ordinances of the jurisdiction shall not
24 be valid.

25 It shall be the duty of the permit applicant to cause the electrical system to remain
26 accessible and exposed for inspection purposes. Neither the Building Official nor the jurisdiction shall be

1 liable for the expense entailed in the removal or replacement of any material required to permit
2 inspection. When the installation of electrical system and equipment is complete, an additional and final
3 inspection shall be made. Electrical systems and equipment regulated by this Code shall not be
4 connected to the energy source until authorized by the Building Official.

5 (b) Inspection Requests. It shall be the duty of the person doing the work authorized by a
6 permit to notify the Building Official that such work is ready for inspection. The Building Official may
7 require that every request for inspection be filed at least one working day before such inspection is
8 desired. Such request may be in writing, by telephone or by Internet, at the option of the Building
9 Official.

10 It shall be the duty of the person requesting any inspection required by this Code to provide
11 access to and means for inspection of such work.

12 (c) Other Inspections. In addition to the called inspections required by this Code, the Building
13 Official may make or require other inspections of any work to ascertain compliance with the provisions
14 of this Code and other laws which are enforced by the code enforcement agency.

15
16 Section 7-2-12. Section 90-19 added.

17 HEARING OFFICIAL. The Hearing Official as established by Section 7-1-23 of the Codified
18 Ordinances shall determine the suitability of alternate materials and methods of construction and
19 provide for reasonable interpretations of the provisions of this Code.

20 Section 7-2-13. Section 90-20 added.

21 Section 90-20. PENALTIES. Any person, firm or corporation violating any of the provisions of this
22 Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a
23 separate offense for each and every day or portion thereof during which any violation of any of the
24 provisions of the Code is committed, continued, or permitted, and upon conviction of any such violation
25 such person shall be punished by a fine of not more than five-hundred dollars (\$500) or by
26 imprisonment for not more than six (6) months, or by both such fine and imprisonment.

1 In addition to the provisions of the subsection above, a notice of violation of this Code may be
2 recorded in accordance with subsection 1 through 6 of Section 7-1-24 of the Orange County Codified
3 Ordinances.

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This ordinance shall take effect and be in full force thirty (30) days from and after its passage and before the expiration of fifteen (15) days after the passage thereof, shall be published once in an adjudicated newspaper in the County of Orange.

THE FOREGOING was **PASSED** and **ADOPTED** by the following vote of the Orange County Board of Supervisors on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL

NOES:
EXCUSED:
ABSTAINED:



CHAIRMAN

STATE OF CALIFORNIA)
) ss:
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Ordinance was duly and regularly adopted by the Orange County Board of Supervisors.

IN WITNESS WHEREOF, I have hereto set my hand and seal.



DARLENE J. BLOOM
Clerk of the Board.
County of Orange, State of California

Ordinance No.: 11-004
Agenda Date: 01/25/2011
Item No.: 48



I certify that the foregoing is a true and correct copy of the Ordinance adopted by the Board of Supervisors, Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

1 Section 103.1 of said Division II of Chapter 1 of the California Mechanical Code is hereby
2 replaced to read as follows:

3 **GENERAL** The provisions of this Code shall apply to the erection, installation, alteration, repair,
4 relocation, replacement, use or maintenance of any heating, ventilating, cooling, refrigeration systems,
5 incinerators or other miscellaneous heat-producing appliances within the unincorporated area of the
6 County and County-owned buildings, except work located in a public way and hydraulic flood control
7 structures.

8 Addition, alterations, repairs and replacement of equipment or systems shall comply with the
9 provisions for new equipment and systems, except as otherwise provided in Section 104.0 of this Code.

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

12 In the event of any differences between the California Code and the Uniform Code, the text of
13 the California Code shall govern.

14 The design and testing of equipment regulated by this Code shall be subject to the
15 approval of the Building Official.

16 Section 110 of said Division II of Chapter 1 of the California Mechanical Code is hereby amended
17 to read as follows:

18 **HEARING OFFICER** Sec. 110.1 In order to determine the suitability of alternate materials and
19 methods of installation and to provide for reasonable interpretation of the provisions of this Code, there
20 shall be and is hereby created a Hearing Officer as specified in Orange County Codified Ordinances Sec.
21 7-1-23.

22 Sec. 7-5-4. Section 110.3 added.

23 Section 110 of said Division II of Chapter 1 of the California Mechanical Code is hereby amended
24 by adding Section 110.3 to read as follows:

25 Section 110.3 NOTICE, ADMINISTRATIVE HEARING, APPEAL

26 Whenever the Building Official issues a Condemnation Order in accordance with the provisions of

1 Section 108.6 of Division II of Chapter 1 of the California Mechanical Code, or a Stop Work Order in
2 accordance with the provisions of Section 108.4 of said Code, the procedures for notice, administrative
3 hearing, and appeal may be instituted in accordance with the provisions of Section 7-1-16 - UNSAFE
4 BUILDING, NUISANCE, NOTICE, ADMINISTRATIVE HEARING, APPEAL of the Orange County Codified
5 Ordinance . The remedies and procedures here provided for shall be cumulative and in addition to the
6 penalties provided for in the Orange County Codified Ordinances pertaining to "Violations and
7 Penalties."

8 Sec. 7-5-5. Section 112.2 amended.

9 Section 112.2 of said Division II of Chapter 1 of the California Mechanical Code is hereby
10 amended to read as follows:

11 112.2 Exempt Work. A mechanical permit shall not be required for the following:

12 112.2.1 A portable heating appliance, portable ventilating equipment, portable cooling
13 unit or portable evaporative cooler.

14 112.2.2 A closed system of steam, hot or chilled water piping within heating or cooling
15 equipment regulated by this Code.

16 112.2.3 Replacement of any component part or assembly of an appliance which does
17 not alter its original approval and complies with other applicable requirements of this Code.

18 112.2.4 Refrigerating equipment which is part of the equipment for which a permit has
19 been issued pursuant to the requirements of this Code.

20 112.2.5 A unit refrigerating system.

21 112.2.6 Other incidental improvements of a minor nature may be exempt from the
22 provisions of this Code upon the determination of the Building Official.

23 Exemption from the permit requirements of this Code shall not be deemed to grant authorization
24 for work to be done in violation of the provisions of this Code or other laws or ordinances of this
25 jurisdiction.

26 Sec. 7-5-6. Section 114 amended.

1 Section 114 of said Division II of Chapter 1 of the California Mechanical Code is hereby amended
2 to read as follows:

3 Section 114.1 Issuance. The application, plans and specifications and other data filed by an
4 applicant for permit shall be reviewed by the Building Official. Such plans may be reviewed by other
5 departments of this jurisdiction to verify compliance with applicable laws under their jurisdiction. If the
6 Building Official finds that the work described in an application for a permit and the plans,
7 specifications and other data filed therewith conform to the requirements of this Code and other
8 pertinent laws and ordinances and that the fees as established by the Board of Supervisors have been
9 paid, he shall issue a permit therefor to the applicant.

10 When the Building Official issues the permit where plans are required, he shall endorse in writing
11 or stamp the plans and specifications "APPROVED." Such approved plans and specifications shall not be
12 changed, modified or altered without authorization from the Building Official, and all work regulated by
13 this Code shall be done in accordance with the approved plans.

14 The Building Official may issue a permit for the construction of a part of the mechanical system
15 before the entire plans and specifications for the whole system have been submitted or approved,
16 provided adequate information and detailed statements have been filed complying with all pertinent
17 requirements of this Code. The holder of such permit may proceed at his own risk without assurance
18 that the permit for the entire building, structure or mechanical system will be granted.

19 114.2 Retention of Plans. One (1) set of approved plans, specifications and computations shall
20 be retained by the Building Official until final approval of the work covered therein. One set of
21 approved plans and specifications shall be returned to the applicant, and said set shall be kept on the
22 site of the building or work at all times during which the work authorized thereby is in progress.

23 114.3 Validity of Permit. The issuance of a permit or approval of plans and specifications and
24 computation shall not be construed to be a permit for, or an approval of, any violation of any of the
25 provisions of this Code or of other ordinance of the jurisdiction. Permits presuming to give authority to
26 violate or cancel the provisions of this Code or of other ordinances of the jurisdiction shall not be valid.

1 The issuance of a permit based upon plans, specifications, computations and other data shall not
2 prevent the Building Official from thereafter requiring the correction of errors in said plans,
3 specifications, and other data or from preventing building operations being carried on thereunder when
4 in violation of this Code or of other ordinances of this jurisdiction.

5 114.4 Expiration. Every permit issued by the Building Official under the provisions of this Code
6 shall expire by limitation and become null and void if the work authorized by such permit is not
7 commenced within one hundred eighty (180) days from the date of such permit, or if the work
8 authorized by such permit is suspended or abandoned at any time after the work is commenced for a
9 period of one hundred eighty (180) days. Before such work can be commenced or recommenced, a
10 permit shall first be extended or re-issued.

11 (1) Requesting extension of an unexpired permit: Any permittee holding an unexpired permit
12 or a permit which has expired for less than 180 days may apply for an extension of time within which
13 permittee may commence work under that permit when permittee is unable to commence or
14 recommence work within the time required by this section for good and satisfactory reasons. The
15 Building Official may extend the time for action by the permittee for a period not exceeding one
16 hundred eighty (180) days upon written request by the permittee showing that circumstances beyond
17 the control of the permittee have prevented action from being taken. Permits extended in this manner
18 will not be subject to new regulations adopted after issuance of the permit. Fees for time extension
19 shall be as established by the Board of Supervisors. Fees shall not be required for first extension.

20 (2) Requesting re-issuance of a permit which has been expired for 180 days or more: Any
21 permittee holding a permit which has been expired for 180 days or more may apply for re-issuance of
22 the permit subject to compliance with current regulations and payment of full plan check and permit
23 fees. Plans must be re-submitted for plan check. Portions of the structure which have been built under
24 the expired permit will not be subject to current regulations.

25 For the purpose of permit extension, multiple permits of the same structure such as building,
26 foundation, retaining wall, plumbing, mechanical, and electrical permits shall be considered as one

1 permit. Extension of building permit shall include extension of ancillary permits of the same structure.
2 Each separate permit with work completed, inspected and approved entirely prior to suspension or
3 abandonment will not be subject to extension or re-issuance.

4 114.4.1 Change of Contractor or of Ownership. A permit issued hereunder shall expire
5 upon a change of ownership or a change of contractor regarding the building, structure or grading for
6 which said permit was issued if the work thereon has not been completed, and a new permit shall be
7 required for the completion of the work. If the provisions of Section 114.4 above are not applicable and
8 if no changes have been made to the plans and specifications last submitted to the Building Official, no
9 charge, other than a "name change" fee and the permit issuance fee, shall be made for the issuance of
10 the new permit under such circumstances. If, however, changes have been made to the plans and
11 specifications last submitted to the Building Official, a fee as established by the Board of Supervisors
12 shall be charged to the permit application.

13 114.5 Suspension or Revocation. The Building Official may, in writing, suspend or revoke a
14 permit issued under the provisions of this Code whenever the permit is issued in error or on the basis
15 of incorrect information supplied or in violation of other ordinance or regulation of the jurisdiction.

16 Sec. 7-5-7. Section 115 amended.

17 Section 115 of said Division II of Chapter 1 of the California Mechanical Code is hereby amended
18 to read as follows:

19 FEES

20 Sec. 115.1 (a) General. Fees shall be assessed in accordance with the provisions of this section.

21 Sec. 115.2 (b) Permit Fees. A fee as established by the Board of Supervisors shall be paid for
22 each permit at the time of issuance.

23 Failure to pay fees and obtain a permit before commencing work shall be deemed a violation of
24 this Code, except when it can be proven to the satisfaction of the Building Official that an emergency
25 existed which made it impractical to first obtain the permit. A violation shall result in an assessment of
26 double fees for work done prior to permit issuance. Payment of a double fee shall not relieve any

1 person from fully complying with the requirements of Code nor from any other penalties prescribed
2 herein.

3 115.3 Plan Check Fees. When plans are required, a plan check fee as established by the Board of
4 Supervisors shall be paid at the time of submittal of such plans.

5 115.3.1 Additional Plan Review Fees. Where plans are incomplete or changed so as to
6 require additional plan checking, an additional plan checking fee as established by the Board of
7 Supervisors shall be paid. Said fee may be waived when in the opinion of the Building Official the
8 additional fee is not warranted. 115.4 Expiration of Plan Review. Application for which no permit is
9 issued within 180 days following the date of application shall expire by limitation, and plans and other
10 data submitted for review may thereafter be returned to the applicant or destroyed by the Building
11 Official. The Building Official may extend the time for action by the applicant for a period not exceeding
12 180 days upon request by the applicant showing that circumstances beyond the control of the applicant
13 have prevented action from being taken. No application shall be extended more than once. In order to
14 renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan
15 review fee.

16 115.5 Special Investigation Fees. A special investigation may be required before a permit will be
17 issued for work which has been started without first obtaining a permit. Except in the case of
18 emergency work, a fee as established by the Board of Supervisors may be collected for such
19 investigation. The special investigation fee shall be in addition to any regular or double fee.

20 No permit shall be issued when an investigation fee is due until such fee has been paid.

21 The payment of the investigation fee shall not exempt any person from compliance with all other
22 provisions of this Code nor from any penalty prescribed by law.

23 115.6 Fee Refunds. The Building Official may authorize refunding of fee which was erroneously
24 paid or collected.

25 Sec. 7-5-8. Section 116 Amended.

26 Section 116 of said Division II of Chapter 1 of the California Mechanical Code is hereby amended

1 to read as follows:

2 **INSPECTIONS**

3 Sec.116.1 (a) General. Mechanical systems for which a permit is required by this Code shall be
4 subject to inspection by the Building Official and such mechanical systems shall remain accessible and
5 exposed for inspection purposes until approved by the Building Official.

6 It shall be the duty of the permit applicant to cause the mechanical system to remain accessible
7 and exposed for inspection purposes. Neither the Building Official nor the jurisdiction shall be liable for
8 expense entailed in the removal or replacement of any material required to permit inspection. When
9 installation of a mechanical system is complete, an additional and final inspection shall be made.

10 Mechanical systems regulated by this Code shall not be connected to the energy fuel-supply lines until
11 authorized by the Building Official.

12 Approval as a result of an inspection shall not be construed to be an approval of a violation of
13 the provisions of this Code or of other ordinances of the jurisdiction. Inspections presuming to give
14 authority to violate or cancel the provisions of this Code or of other ordinances of the jurisdiction shall
15 not be valid.

16 **116.2 Operation of Mechanical Equipment.** The requirements of this section shall not be
17 considered to prohibit the operation of any mechanical systems installed to replace existing equipment
18 or fixtures serving an occupied portion of the building in the event a request for inspection of such
19 equipment or fixture has been filed with the Building Official not more than 48 hours after such
20 replacement work is completed, and before any portion of such mechanical system is concealed by any
21 permanent portion of the building.

22 **116.3 Testing of Equipment.** Refrigeration equipment regulated by this Code shall be tested and
23 approved as required by Section 1124.0 of this Code.

24 Steam and hot-water boilers and piping shall be tested and approved as required by Section
25 1124.0, 1201.2.8, and 1207.0 of this Code.

26 Where applicable (see Section 103), fuel-gas piping shall be tested and approved as required by

1 Section 1304 of this Code.

2 116.4 Inspection Requests. It shall be the duty of the person doing the work authorized by a
3 permit to notify the Building Official that such work is ready for inspection. The Building Official may
4 require that every request for inspection be filed at least one working day before such inspection is
5 desired. Such request may be in writing, telephone or by Internet at the option of the Building Official.

6 It shall be the duty of the person requesting inspections required by this Code to provide access
7 to and means for proper inspection of such work.

8 116.5 Other Inspections. In addition to the called inspections required by this Code, the Building
9 Official may make or require other inspections of any mechanical work to ascertain compliance with the
10 provisions of this Code and other laws which are enforced by the code enforcement agency.

11 116.6 Reinspections. To obtain reinspection, the applicant shall pay the reinspection fee as
12 established by the Board of Supervisors.

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

15 Section 116.7 PENALTIES. Any person, firm or corporation violating any of the provisions of this
16 Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a
17 separate offense for each and every day or portion thereof during which any violation of any of the
18 provisions of the Code is committed, continued, or permitted, and upon conviction of any such violation
19 such person shall be punished by a fine of not more than five hundred dollars (\$500) or by
20 imprisonment for not more than six (6) months, or by both such fine and imprisonment.

21 In addition to the provisions of the subsection above, a notice of violation of this Code may be
22 recorded in accordance with Subsections 1 through 6 of Section 7-1-24 of the Orange County Codified
23 Ordinances.

24 ///

25 ///

26 ///

This ordinance shall take effect and be in full force thirty (30) days from and after its passage and before the expiration of fifteen (15) days after the passage thereof, shall be published once in an adjudicated newspaper in the County of Orange.

THE FOREGOING was **PASSED** and **ADOPTED** by the following vote of the Orange County Board of Supervisors on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL

NOES:
EXCUSED:
ABSTAINED:



CHAIRMAN

STATE OF CALIFORNIA)
) ss:
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Ordinance was duly and regularly adopted by the Orange County Board of Supervisors.

IN WITNESS WHEREOF, I have hereto set my hand and seal.



DARLENE J. BLOOM
Clerk of the Board.
County of Orange, State of California



Ordinance No.: 11-003
Agenda Date: 01/25/2011
Item No.: 48



I certify that the foregoing is a true and correct copy of the Ordinance adopted by the Board of Supervisors, Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

1 This article shall be known as the Uniform Plumbing Code and the California Plumbing Code and
2 will be referred to in this Article as "this Code." In the event of any differences between the California
3 Code and the Uniform Code, the text of the California Code shall govern. Where a specific provision
4 varies from a general provision, the specific provision shall apply. When, in any specific case, different
5 sections of this code specify different materials, methods of construction or other requirements, the
6 most restrictive shall govern.

7 **Sec. 7-3-3. APPLICATION AND SCOPE.**

8 The provisions of this Code shall apply to all new construction, relocated buildings, and to any
9 alterations, repairs, or reconstruction, except as provided for otherwise in this Code.

- 10 (a) Maintenance. The plumbing and drainage system of any premises under the jurisdiction of
11 the Building Official shall be maintained in a sanitary and safe operating condition by the
12 owner or the owner's agent.
- 13 (b) Existing Construction. No provision of this Code shall be deemed to require a change in any
14 portion of a plumbing or drainage system or any other work regulated by this Code in or on
15 an existing building or lot when such work was installed and is maintained in accordance
16 with law in effect prior to the effective date of this Code, except when any such plumbing
17 or drainage system or other work regulated by this Code is determined by the Building
18 Official to be in fact dangerous, unsafe, insanitary, or a nuisance and a menace to life,
19 health, or property.
- 20 (c) Additions, alterations, repairs and replacement of plumbing systems shall comply with the
21 provisions for new systems except as otherwise provided in Section (d).
- 22 (d) Application to Existing Plumbing System.
- 23 (1) Additions, Alterations or Repairs. Additions, alterations or repairs may be made to any
24 plumbing system without requiring the existing plumbing system to comply with all
25 the requirements of this Code, provided the addition, alteration or repair conforms to
26

1 that required for a new plumbing system. Additions, alterations or repairs shall not
2 cause an existing system to become unsafe, insanitary or overloaded.

3 (2) Health and Safety. Whenever compliance with all the provisions of this Code fails to
4 eliminate or alleviate a nuisance or any other dangerous or insanitary condition which
5 may involve health or safety hazards, the owner or the owner's agent shall install
6 such additional plumbing and drainage facilities or shall make such repairs or
7 alterations as may be ordered by the Building Official.

8 (3) Existing Installation. Plumbing system lawfully in existence at the time of the adoption
9 of this Code may have their use, maintenance or repair continued if the use,
10 maintenance or repair is in accordance with the original design and location and no
11 hazard to life, health or property has been created by such plumbing system.

12 (4) Changes in Building Occupancy. Plumbing systems which are a part of any building or
13 structure undergoing a change in use or occupancy, as defined in the Building Code,
14 shall comply to all requirements of this Code which may be applicable to the new use
15 or occupancy.

16 (5) Maintenance. All plumbing systems, materials and appurtenances, both existing and
17 new, and all parts thereof shall be maintained in proper operating condition. All
18 devices or safeguards required by this Code shall be maintained in conformance with
19 the Code edition under which installed. The owner or the owner's designated agent
20 shall be responsible for maintenance of plumbing systems. To determine compliance
21 with this subsection, the Building Official may cause any plumbing system to be
22 reinspected.

23 (6) Moved Buildings. Plumbing systems which are part of buildings or structures moved
24 into this jurisdiction shall comply with the provisions of this Code for new
25 installations.

26 Sec. 7-3-4. AUTHORITY HAVING JURISDICTION.

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

3 Unless otherwise provided for by law, the office of the Authority Having Jurisdiction shall be that
4 of the Building Official of the County of Orange.

5 **Sec. 7-3-5. DUTIES OF AUTHORITY HAVING JURISDICTION.**

6 The Building Official shall maintain public office hours necessary to efficiently administer the
7 provisions of this Code and amendments hereto and perform the following duties:

- 8 (a) Require submission of, examine and check plans and specifications drawings, descriptions,
9 and/or diagrams necessary to show clearly the character, kind and extent of plumbing work
10 covered by applications for a permit and upon approval thereof shall issue the permit applied for.
- 11 (b) Administer and enforce the provisions of this Code in a manner consistent with the intent thereof
12 and shall inspect all plumbing and drainage for conformity with any permit to assure compliance
13 with provisions of the Code or amendments thereto, approving and rejecting said work in whole
14 or in part as conditions require.
- 15 (c) Condemn and reject all work done or being done or materials used or being used which do not
16 in all respects comply with the provisions of this Code and amendments thereto.
- 17 (d) Investigate any construction or work regulated by this Code and issue such notices and orders
18 as provided in Section 7-3-7.

19 **Sec. 7-3-6. RIGHT-OF-ENTRY.**

- 20 (a) Whenever necessary to make an inspection to enforce any of the provisions of this Code,
21 or whenever the Building Official or his authorized representative has reasonable cause to
22 believe that there exists in any building or upon any premises, any condition which makes
23 such building or premises unsafe as defined in Section 116 of the International Building
24 Code, the Building Official or his authorized representative may enter such building or
25 premises at all reasonable times to inspect the same or to perform any duty imposed upon
26 the Building Official by this Code; provided that if such building or premises be occupied,

1 he shall first present proper credentials and demand entry; and if such building or premises
2 be unoccupied, he shall first make a reasonable effort to locate the owner or other persons
3 having charge or control of the building or premises and demand entry. If such entry is
4 refused, the Building Official or his authorized representative shall have recourse to every
5 remedy provided by law to secure entry.

6 (b) Liability. The Building Official charged with the enforcement of this code, acting in good
7 faith and without malice in the discharge of the duties required by this code or other
8 pertinent law or ordinance shall not thereby be rendered personally liable for damages that
9 may accrue to persons or property as a result of an act or by reason of an act or omission
10 in the discharge of such duties. A suit brought against the Building Official or employee
11 because of such act or omission performed by the Building Official or employee in the
12 enforcement of any provisions of such codes or other pertinent laws or ordinances
13 implemented through the enforcement of this code or enforced by the code enforcement
14 agency shall be defended by this jurisdiction until final termination of such proceedings,
15 and any judgment resulting therefrom shall be assumed by this jurisdiction.

16 This code shall not be construed to relieve from or lessen the responsibility of any person
17 owning, operating or controlling any building or structure for any damages to persons or
18 property caused by defects, nor shall the code enforcement agency or its parent
19 jurisdiction be held as assuming any such liability by reason of the inspections authorized
20 by this code or any permits or certificates issued under this code.

21 **Sec. 7-3-7. DANGEROUS AND UNSANITARY CONSTRUCTION OR CONDITION.**

22 (a) Any portion of a plumbing system found by the Building Official to be unsanitary as defined
23 herein is hereby declared to be a nuisance.

24 (b) Whenever brought to the attention of the agency or department having jurisdiction that any
25 unsanitary conditions exist, or that any construction or work regulated by the this Code is dangerous,
26 unsafe, unsanitary, a nuisance or a menace to life, health, or property or otherwise in violation of this

1 Code, the said agency or department may request an investigation by the Building Official who, upon
2 determining such information to be fact, shall order any person, firm, or corporation using or
3 maintaining any such condition or responsible for the use or maintenance thereof to discontinue the
4 use or maintenance thereof or to repair, alter, change, remove or demolish same as he may consider
5 necessary for the proper protection of life, health or property; and in the case of any gas piping or gas
6 appliance may order any person, firm or corporation, supplying gas to such piping or appliance to
7 discontinue supplying gas to such piping or appliance until such piping or appliance is made safe to life,
8 health, or property.

9 (c) Notice, hearing, procedure. Any construction or condition found to be unsanitary, dangerous,
10 damaged, unsafe, a nuisance, or a menace to life, health, or property or otherwise in violation of this
11 Code shall be reported, and the Building Official, upon a determination of such condition, shall give
12 notice to the owner, authorized representative, or other responsible person in accordance with the
13 provisions of Section 7-1-16 - UNSAFE BUILDING, NUISANCE, NOTICE, ADMINISTRATIVE HEARING,
14 APPEAL - of the Orange County Codified Ordinances. The provisions, procedures, hearings, and
15 appeals set forth in the above said Code section shall be fully applicable to this Code and are referred
16 to and incorporated herein as though set forth at length.

17 Sec. 7-3-8. BOARD OF APPEALS.

18 In order to provide for final interpretation of the provisions of this Code, there shall be and is
19 hereby created a Board of Appeals as specified in Codified Ordinance Sec. 7-1-23.

20 Sec. 7-3-9. VALIDITY AND LENGTH OF PERMIT.

21 (a) Validity. The issuance or granting of a permit or approval of plans, specifications and
22 computations shall not be construed to be a permit for, or an approval of, any violation of any of the
23 provisions of this Code or any other ordinance of the County. Permits presuming to give authority to
24 violate or cancel the provisions of this Code or other ordinances of the County shall not be valid.

25 The issuance of a permit based upon plans, specifications and other data shall not prevent the
26 Building Official from thereafter requiring the correction of errors in said plans, specifications and other

1 data, or from preventing building operations being carried on thereunder when in violation of this Code
2 or of any other ordinances of the County.

3 (b) Expiration. Every permit issued by the Building Official under the provisions of this Code shall
4 expire by limitation and become null and void if the work authorized by such permit is not commenced
5 within one hundred eighty (180) days from the date of such permit, or if the work authorized by such
6 permit is suspended or abandoned at any time after the work is commenced for a period of one
7 hundred eighty (180) days. Before such work can be commenced or recommenced, a permit shall first
8 be extended or re-issued.

9 (1) Requesting extension of an unexpired permit: Any permittee holding an unexpired permit
10 or a permit which has expired for less than 180 days may apply for an extension of time within which
11 permittee may commence work under that permit when permittee is unable to commence or
12 recommence work within the time required by this section for good and satisfactory reason. The
13 Building Official may extend the time for action by the permittee for a period not exceeding one
14 hundred eighty (180) days upon written request by the permittee showing that circumstances beyond
15 the control of the permittee have prevented action from being taken. Permits extended in this manner
16 will not be subject to new regulations adopted after issuance of the permit. Fees for time extension
17 shall be established by the Board of Supervisors. Fees shall not be required for first extension.

18 (2) Requesting re-issuance of a permit which has been expired for 180 days or more: Any
19 permittee holding a permit which has been expired for 180 days or more may apply for re-issuance of
20 the permit subject to compliance with current regulations and payment of full plan check and permit
21 fees. Plans must be re-submitted for plan check. Portions of the structure which have been built under
22 the expired permit will not be subject to current regulations.

23 For the purpose of permit extension, multiple permits of the same structure such as building,
24 foundation, retaining wall, plumbing, mechanical, and electrical permits shall be considered as one
25 permit. Extension of building permit shall include extension of ancillary permits for the same structure.
26

1 Each separate permit with work completed, inspected and approved entirely prior to suspension or
2 abandonment will not be subject to extension or re-issuance.

3 (c) Change of contractor or of ownership. A permit issued hereunder shall expire upon a change of
4 ownership or a change of contractor regarding the building or structure for which said permit was
5 issued if the work thereon has not been completed, and a new permit shall be required for the
6 completion of the work. If the provisions of Section (b) above are not applicable and if no changes
7 have been made to the plans and specifications last submitted to the Building Official, no charge, other
8 than a "name change" and a permit issuance fee, shall be made for the issuance of the new permit
9 under such circumstances. If, however, changes have been made to the plans and specifications last
10 submitted to the Building Official, fees as established by the Board of Supervisors shall be charged to
11 the permit applicant.

12 (d) Suspension or revocation. The Building Official may, in writing, suspend or revoke a permit
13 issued under provisions of this Code whenever the permit is issued in error or on the basis of incorrect
14 information supplied or in violation of any ordinance or regulation or any of the provisions of this Code.

15 **Sec. 7-3-10. VIOLATIONS AND PENALTIES.**

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

20 Any person, firm, or corporation violating any of the provisions of this Code shall be deemed
21 guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each
22 and every day or portion thereof during which any violation of any of the provisions of this Code is
23 committed, continued, or permitted, and upon conviction of any such violation such person shall be
24 punished by a fine of not more than five hundred dollars (\$500.00) or by imprisonment for not more
25 than six (6) months, or by both such fine and imprisonment.

1 In addition to the provisions of the subsections above, a notice of violation of this Code may be
2 recorded in accordance with subsections 1 through 6 of Section 7-1-24 of the Orange County Codified
3 Ordinances.

4 **Sec. 7-3-11. PERMIT REQUIRED**

5 (a) No plumbing or drainage work shall be commenced in any building, structure, or in or about any
6 premises until a permit to do such work has been first obtained from the Building Official.

7 (b) A separate permit shall be obtained for each building or structure.

8 **Sec. 7-3-12. WORK NOT REQUIRING PERMIT.**

9 No permit shall be required in the case of any repair work as follows:

10 (a) For the clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, when such
11 repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

12 (b) For the stopping of leaks in drains, soil, waste or vent pipe, provided, however, that should any
13 trap, drain pipe, soil, waste or vent pipe be or become defective and it becomes necessary to remove
14 and replace the same shall be considered as such new work and a permit shall be procured and
15 inspection made as herein provided.

16 (c) Other incidental improvements of a minor nature may be exempt from the provisions of this
17 Code upon the determination of the Building Official.

18 Exemption from the permit requirements of this Code shall not be deemed to grant authorization
19 for any work to be done in any manner in violation of the provisions of this Code or any other laws or
20 ordinances of this jurisdiction.

21 **Sec. 7-3-13. APPLICATION FOR PERMIT.**

22 Any person legally entitled to apply for and receive a permit shall make such application on
23 forms provided for that purpose. He shall give a description of the character of the work proposed to
24 be done, and the location, ownership, occupancy and use of the premises in connection therewith. The
25 Building Official may require plans, specifications, or drawings and such other information as may be
26 deemed necessary.

1 If the Building Official determines that the plans, specifications, drawings, descriptions, or
2 information furnished by the applicant is in compliance with this Code, he shall issue the permit upon
3 payment of the required fee as establish by the Board of Supervisors.

4 Sec. 7-3-14. ALL WORK TO BE INSPECTED.

5 All plumbing and drainage systems shall be inspected by the Building Official to ensure
6 compliance with all requirements of this Code.

7 It shall be the duty of the person doing the work authorized by the permit to notify the Building
8 Official orally, in writing or by Internet that said work is ready for inspection. Such notification shall be
9 given not less than twenty-four (24) hours before the work is to be inspected.

10 It shall be the duty of the person doing the work authorized by the permit to make sure that the
11 work will stand the tests prescribed elsewhere in this Code before giving the above notification.

12 Sec. 7-3-15. FEES AND PLAN REVIEW.

13 (a) Plan Review Fees. When a plan or other data is required to be submitted for plan review, a plan-
14 checking fee shall be paid at the time of submitting plans and specifications for checking. Said plan-
15 checking fee shall be established by the Board of Supervisors.

16 (1) Expiration of Plan Review. Application for which no permit is issued within 180 days
17 following the date of application shall expire by limitation, and plans and other data submitted for
18 review may thereafter be returned to the applicant or destroyed by the Building Official. The Building
19 Official may extend the time for action by the applicant for a period of 180 days on request by the
20 applicant showing that circumstances beyond the control of the applicant have prevented action from
21 being taken. No application shall be extended more than once. In order to renew action on an
22 application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

23 (2) Additional Plan Review Fees. Where plans are incomplete or changed so as to require
24 additional plan checking, an additional plan checking fee as established by the Board of Supervisors
25 shall be paid. Said fee may be waived when in the opinion of the Building Official the additional fee is
26 not warranted.

1 (b) Permit fee. A fee as established by the Board of Supervisors shall be paid for each permit at the
2 time of issuance.

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

9 For the purpose of this section, a sanitary plumbing outlet on or to which a fixture or appliance
10 may be set or attached shall be construed to be a fixture. Fees for reconnection and retest of existing
11 plumbing systems in relocated buildings shall be as established by the Board of Supervisors.

12 When a permit has been obtained to connect an existing building or existing work to the public
13 sewer or to a new private disposal facility back-filling of private sewage disposal facilities abandoned
14 consequent to such connection is included in the building sewer permit.

15 (c) Special investigation fee. A special investigation may be required before a permit will be issued
16 for work which has been started without first obtaining a permit. Except in the case of emergency
17 work, a fee as established by the Board of Supervisors may be collected for such investigation. The
18 special investigation fee shall be in addition to any regular or double fee. No permit shall be issued
19 when an investigation fee is due until such fee has been paid.

20 The payment of the investigation fee shall not exempt any person from compliance with the
21 provisions of this Code nor from any penalty prescribed by law.

22 (d) Reinspection fee. When any reinspection is required due to the failure of the permit holder, his
23 agent or other responsible persons to comply with previous correction instructions, a fee as established
24 by the Board of Supervisors may be charged by the Building Official for each such reinspection. This
25 fee shall be paid before any further inspections are made.(e) Refunds. The Building Official may
26 authorize refunding of fees which was erroneously paid or collected.

1 (f) Change of Contractor or of Ownership. A permit issued hereunder shall expire upon a change of
2 ownership or a change of contractor regarding the building, structure or grading for which said permit
3 was issued if the work thereon has not been completed, and a new permit shall be required for the
4 completion of the work. If the provisions of section (f) above are not applicable and if no changes have
5 been made to the plans and specifications last submitted to the Building Official, no charge, other than
6 a "name change" and a permit issuance fee, shall be made for the issuance of the new permit under
7 such circumstances. If, however, changes have been made to the plans and specifications last
8 submitted to the Building Official, a fee as established by the Board of Supervisors shall be charged to
9 the permit application.

10 Sec. 7-3-16. Section 604.1 - MATERIALS amended.

11 Section 604.1 of said California Plumbing Code and Uniform Plumbing Code is hereby amended
12 to read as follows:

13 Section 604.1 All pipe, tube, and fittings carrying water used in potable water systems intended to
14 supply drinking water shall meet the requirements of NSF 61 as found in Table 14-1. All materials used
15 in the water supply system, except valves and similar devices shall be of a like material, except where
16 otherwise approved by the Building Official.

17 Materials for building water piping and building supply piping shall be in accordance with Table
18 6-4 and the standards in Table 14-1. Galvanized malleable iron, galvanized wrought iron, or galvanized
19 steel are prohibited materials.

20 Note: The balance of the California Plumbing Code and the Uniform Plumbing Code Section
21 604.1 is implemented as written.

22 Sec. 7-3-17. Section 609.3.1 – INSTALLATION.

23 Section 609.3.1 of said California Plumbing Code and Uniform Plumbing Code is hereby amended
24 to read as follows:

25 Section 609.3.1 Ferrous piping shall be prohibited.

26 ///

ORDINANCE NO. 11-005

AN ORDINANCE OF THE COUNTY OF ORANGE, CALIFORNIA REPEALING THE CALIFORNIA FIRE CODE, 2007 EDITION ORDINANCE 08-009 AND ADOPTING BY REFERENCE THE CALIFORNIA FIRE CODE, 2010 EDITION WITH APPENDIX B, BB, C, CC AND AMEDNMENTS THERETO.

FIRE CODE

Section 3-3-1. Fire Code Adopted

The 2010 California Fire Code, based on the International Fire Code, 2009 Edition, with errata, published by International Code Council (ICC), and the whole thereof, including Appendix B, Appendix BB, Appendix C, Appendix CC, are hereby adopted by the County of Orange for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire and explosion, save and except such portions as are hereinafter added, deleted, modified or amendment. One copy of all the above is now on file in the office of the Clerk for public inspection and is adopted with the same force and effect as through set out herein in full.

Section 3-3-2 Enforcement and Inspection

The California Fire Code with amendments shall be enforced by the Orange County Fire Authority, which shall be operated under the Fire Chief of the Orange County Fire Authority. The Fire Chief of the Orange County Fire Authority may detail such members of the fire authority as inspectors as shall be necessary from time to time.

Section 3-3-3 Scope and Administration

Chapter 1 Scope and Administration is adopted in its entirety with the following amendments:

Section 105.6.29 Miscellaneous Combustible Storage is hereby revised as follows:

105.6.29. Miscellaneous Combustible Storage. An operational permit is required to store in any building or upon any premises in excess of 2500 cubic feet (71 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, green waste, composting, yard waste, or similar combustible material.

Section 105.6.35 Private fire hydrants is hereby deleted without replacement.

Section 109.3 Violation penalties is hereby revised as follows: Infraction, Misdemeanor, as follows:

109.3 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 provisions of this code, shall be guilty of either a misdemeanor, infraction or both as prescribed in Section 109.3.2 and 109.3.3 Penalties shall be as prescribed in local ordinance Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Sections 109.3.2 Infraction is hereby added as follows:

109.3.2 Infraction. Except as provided in Section 109.3.2, persons operating or maintaining any occupancy, premises or vehicle subject to this code that shall permit any fire or life safety hazard to exist on premises under their control shall be guilty of an infraction.

Sections 109.3.3 Misdemeanor is hereby added as follows:

109.3.3 Misdemeanor. Persons who fail to take immediate action to abate a fire or life safety hazard when ordered or notified to do so by the chief or a duly authorized representative, or who violate the following sections of this code, shall be guilty of a misdemeanor:

104.11.2 Obstructing operations

104.11.3 Systems and Devices

107.6 Overcrowding

109.2.2 Compliance with Orders and Notices

111.4 Failure to comply

305.4 Deliberate or negligent burning

308.1.2 Throwing or placing sources of ignition

310.7 Burning Objects

2404.7 Open or exposed flames

Section 3-3-4. Chapter 2

Chapter 2 Definitions is adopted in its entirety with the following amendments:

Sections 202 General Definitions is hereby revised by adding "Flow-line" and "Hazardous Fire Area", and revising "High-Rise Building" as follows:

202 General Definitions

FLOW-LINE is the lowest continuous elevation on a rolled curb defined by the path traced by a particle in a moving body of water at the bottom of the rolled curb.

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

HIGH-RISE BUILDING. In other than Group I-2 occupancies "high-rise buildings" as used by this Code:

1. Existing high-rise structure" means a high-rise structure, the construction of which commenced or completed prior to July 1, 1974.

2. "High-rise structure" means every building of any type of construction or occupancy having floor used for human occupancy located more than 55 feet above the lowest floor level having building access except buildings used as hospitals as defined by the Health and Safety Code Section 1250.
3. "New high-rise structure" means a high-rise structure, the construction of which commenced on or after July 1, 1974

Section 3-3-5 Chapter 3

Chapter 3 General Precautions Against Fire is adopted in its entirety with the following amendments:

Section 304.1.2 (7) Vegetation is hereby revised by adding Section "(E)" as follows:

(E) OCFA Vegetation Management Guideline.

Section 305.5 Chimney spark arrestors is hereby added as follows:**305.5**

Chimney spark arrestors. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrester, the spark arrester shall meet all of the following requirements:

1. The net free area of the spark arrester shall not be less than four times the net area of the outlet of the chimney.
2. The spark arrester screen shall have heat or corrosion resistance equivalent to 12 gage steel wire, 19 gage galvanized wire or 24 gage stainless steel.
3. Openings shall not permit the passage of spheres having a diameter larger than ½ inch and shall not block the passage of spheres having a diameter of less than 3/8 inch.

4. The spark arrester shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.

Section 308.1.4 Open-flame Cooking Devices is hereby deleted.

Section 318 Development On Or Near Land Containing Or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors, is hereby added as follows:

318 Development On Or Near Land Containing Or Emitting Toxic, Combustible or Flammable Liquids, Gases or Vapors. The fire code official may require the submittal for approval of geological studies, evaluations, reports, remedial recommendations and/or similar documentation from a state-licensed and department-approved individual or firm, on any parcel of land to be developed which has, or is adjacent to, or within 1,000 feet (304.8 m) of a parcel of land that has an active, inactive, or abandoned oil or gas well operation, petroleum or chemical refining facility, petroleum or chemical storage, or may contain or give off toxic, combustible or flammable liquids, gases or vapors.

Section 319 Fuel Modification Requirements for New Construction is hereby added as follows:

319 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in areas containing combustible vegetation shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.

3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Vegetation Managements Guideline.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approval by the fire code official.
5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

Section 320 Clearance of brush or vegetation growth from roadways is hereby added as follows:

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

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

Section 321 Unusual Circumstances is hereby added as follows:

321 Unusual circumstances. The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures

designed to advance the purpose of this code if determined that in any specific case that any of the following conditions exist:

- 1 Difficult terrain.
- 2 Danger of erosion.
- 3 Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.
- 4 Stands or groves of trees or heritage trees.
- 5 Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

Section 322 Use of Equipment is hereby added as follows:

322 Use of equipment. Except as otherwise provided in this section, no person shall use, operate, or cause to be operated, in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 322.1 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exception: Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.

1. *Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in good mechanical condition*

Section 322.1 Spark Arrestors is hereby added as follows:

322.1 Spark arrestors. Spark arrestors shall comply with the following:

1. A spark arrester is a device constructed of nonflammable material specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch (0.58 mm) in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
2. Spark arresters affixed to the exhaust system of engines or vehicles subject to Section 322 shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.

Section 323 Restricted Entry is hereby added as follows:

323 Restricted Entry. The fire code official shall determine and publicly announce when hazardous fire areas shall be closed to entry and when such areas shall again be opened to entry. Entry on and occupation of hazardous fire areas, except public roadways, inhabited areas or established trails and camp sites which have not been closed during such time when the hazardous fire area is closed to entry, is prohibited.

Exception:

1. *Residents and owners of private property within hazardous fire areas and their invitees and guests going to or being upon their lands.*
2. *Entry, in the course of duty, by peace or police officers, and other duly authorized public officers, members of a fire department and members of the United States Forest Service.*

Section 324 Trespassing on posted property is hereby added as follows:

324 Trespassing on posted property. When the fire code official determines that a specific area within a hazardous fire area presents an exceptional and continuing fire danger

because of the density of natural growth, difficulty of terrain, proximity to structures or accessibility to the public, such areas shall be closed until changed conditions warrant termination of closure. Such areas shall be posted as hereinafter provided.

1. Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.
2. Trespassing. Entering and remaining within areas closed and posted is prohibited.

Exception: Owners and occupiers of private or public property within closed and posted areas, their guests or invitees, and local, state and federal public officers and their authorized agents acting in the course of duty.

Section 325 Outdoor fires is hereby added as follows:

325 Outdoor fires. Outdoor fires shall not be built, ignited or maintained in or upon hazardous fire areas, except by permit from the fire code official.

Exception: Outdoor fires within habited premises or designated campsites where such fires are built in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator or grill and are a minimum of 30 feet (9144 mm) from a grass, grain, brush, or forest-covered area. Permanent barbecues, portable barbecues, outdoor fireplaces or grills shall not be used for the disposal of rubbish, trash or combustible waste material.

Section 325.1 Outdoor fire permits is hereby added as follows:

325.1 Outdoor fire permits. Outdoor fire permits shall incorporate such terms and conditions which will reasonably safeguard public safety and property. Outdoor fires shall not be built, ignited or maintained in or upon hazardous fire areas under the following conditions:

1. When predicted sustained winds exceed 20 MPH at the ground level, or a red flag condition has been declared,
2. When a person age 17 or over is not present at all times to watch and tend such fire, or
3. When a public announcement is made that open burning is prohibited.

Section 3-3-6 Chapter 4

Chapter 4: Emergency Planning and Preparedness adopt only the Sections listed below:

1. Section 401
2. Section 402
3. Section 403
4. Section 407

Section 3-3-7 Chapter 5

Chapter 5 Fire Service Features is adopted in its entirety with the following amendments

SECTION 503.1.1 Buildings and facilities is revised by adding exception 4 as follows:

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a 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 to within 150 feet (45 720 mm) 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.

Exception: The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where:

- 1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.*
- 2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.*
- 3. There are not more than two Group R-3 or Group U occupancies.*
- 4. For Group R-3 and Group U occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, or 903.3.1.3 the fire apparatus access road shall comply with the requirements of this section and shall extend to within 300 feet (91 m) of the main entry door to the building.*

SECTION 503.2.1 Dimensions is revised as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Street widths are to be measured from top face of curb to top face of curb, on streets with curb and gutter, and from flow-line to flow-line on streets with rolled curbs.

SECTION 503.2.1.1 Hazardous Areas is added as follows:

503.2.1.1 Hazardous Areas. In areas defined as State Responsibility Area: Very High Fire Hazard Severity Zones, and Local Responsibility Area: Very High Fire Hazard Severity Zones Area as adopted by the local agencies, the minimum fire apparatus road width shall be 28 feet (8.53 m).

Exception: When the road serves no more than 3 dwelling units and the road does not exceed 150 feet (45.7 m) in length, the road width may be 24 feet 7.3 m).

SECTION 503.4 Obstruction of fire apparatus access roads is revised as follows:

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 widths and clearances established in Section 503.2.1 shall be maintained at all times. Speed Bumps and speed humps, shall be approved prior to installation.

SECTION 503.6 Security gates is revised as follows:

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, 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 F 2200. Vehicle access gates or barriers shall be in accordance with the Orange County Fire Authority Guidelines "Fire Master Plan for Commercial and

Residential Development". All electrically operated vehicle access gates shall be equipped with an automatic opening device in addition to a key opening switch.

Section 505.1 Address Identification is revised as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies, for all other occupancies the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch. Where access is by a private road and the building cannot be viewed from the *public way*, a monument, pole or other sign or means shall be used to identify the structure.

SECTION 507.5.1 Where required is revised as follows:

507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than allowed in APPENDIX C – FIRE HYDRANT LOCATIONS AND DISTRIBUTION from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exception:

1. *For Group R-3 and Group U occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with Section*

903.3.1.1 or 903.3.1.2, or 903.3.1.3 the distance requirement shall be not more than 600 feet (183 m).

Section 510.1 Emergency responder radio coverage in buildings is revised as follows:

510.1 Emergency responder radio coverage in buildings. All new buildings shall have radio coverage for emergency responders in accordance with the county's digital radio ordinance. In the absence of a county ordinance, Orange County Fire Authority's Emergency Responder Digital Radio Guideline shall apply. This section shall not require improvement of the existing public safety communication systems.

Exceptions: Where it is determined by the fire code official that the radio coverage system is not needed.

Section 510.2 Radio signal strength is hereby deleted without replacement:

Section 3-3-8 Chapter 6

Chapter 6 Building Service and Systems is adopted in its entirety with the following amendments

Section 604.2.15.1.1 CFC Standby power loads, is here amended as follows:

[B] 604.2.15.1.1 Standby power loads. The following loads are classified as standby power loads:

1. Smoke control system.
2. Fire pumps.
3. Standby power shall be provided for elevators in accordance with Section 3003 of the California Building Code.

Section 604.2.15.2.1 CFC (Section 403.1.1 CBC) Emergency power loads, is hereby amended by adding item 6 as follows:

[B] 604.2.15.2.1 Emergency power loads. The following loads are classified as emergency power loads:

1. Emergency voice/alarm communication systems.
2. Fire alarm systems.
3. Automatic fire detection systems.
4. Elevator car lighting.
5. Means of egress lighting and exit sign illumination as required by Chapter 10.
6. Ventilation and automatic fire detection equipment for smokeproof enclosures.

Section 606.8 Refrigerant Detector is hereby amended as follows:

606.8 Refrigerant Detector. Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values shown in the California Mechanical Code for the refrigerant classification. Detectors and alarms shall be placed in approved locations. Emergency shutoff shall also be automatically activated when the concentration of refrigerant vapor exceeds 25 percent of LFL. The detector shall transmit a signal to an approved location.

Section 606.10.1.2 Manual Operation is hereby amended as follows:

606.10.2 Manual operation. When required by the fire code official, automatic crossover valves shall be capable of manual operation. The manual valves shall be located in an approved location immediately outside of the

machinery room, in a secure metal box or equivalent and marked as Emergency Controls.

Section 608.1 Scope is hereby amended as follows:

608.1 Scope. Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead acid, nickel cadmium (Ni-Cd) and valve-regulated lead acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion and lithium metal polymer, used for facility standby power, emergency power or, uninterrupted power supplies, shall comply with this section and Table 608.1. Indoor charging of electric carts/cars with more than 50 gallons (189 L) shall comply with Section 608.10,

Section 608.10 Indoor charging of electric carts/cars is hereby added as follows:

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

Section 610 Photovoltaic Systems is hereby added as follows:

SECTION 610

PHOTOVOLTAIC SYSTEMS

Section 610.1 General is hereby added as follows:

610.1 Manual operation. Photovoltaic systems shall comply with Orange County Fire Chief's Association Guideline for Fire Safety Elements of Solar Photovoltaic Systems. The provision of this section may be applied by either the fire code official or the building code official.

Section 3-3-9 Chapter 7

Chapter 7 Fire-Resistive-Rated Construction is adopted in its entirety without amendments.

Section 3-3-10 Chapter 8

Chapter 8 Interior Finish, Decorative Materials and Furnishings adopt only the

Sections and Subsections listed below:

1. Section 801
2. Section 802
3. Section 803
4. Section 804
5. Subsection 806.2
6. Subsection 807.1
7. Subsection 807.1.2
8. Subsection 807.4.5.1
9. Subsection 807.4.2.4.1
10. Subsection 807.4.5
11. Subsection 807.4.2.4
12. Table 803.3

Section 3-3-11. Chapter 9

Chapter 9 Fire Protection Systems is adopted in its entirety with the following amendments:

Section 903.2 Where required is hereby revised as follows:

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

1. **New buildings:** Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.12, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m²) as defined in Section 202, regardless of fire areas or allowable area.
Exception: Group R-3 occupancies. Group R-3 occupancies shall comply with Section 903.2.8.
2. **Existing Buildings:** Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and when one of the following conditions exists:
 - a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202; or
 - b. When an addition exceeds 2000 square feet (186 m²) and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202.

Section 903.2.8 Group R is hereby revised as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 902.1 shall be provided throughout all buildings with a Group R fire area as follows:

1. **New Buildings:** An automatic sprinkler system shall be installed throughout all new buildings.
2. **Existing Buildings:** All existing buildings shall be equipped with automatic fire sprinkler systems when the alteration or addition meets the following conditions:

- a. Alteration: When the area of the existing structure is greater than 5,500 square feet and the area of alteration within any two-year period exceeds 50% of area of the existing structure.

Exception: When the cost of installing an approved automatic sprinkler exceeds 5% of the cost of the alteration, with the approval of the Fire Code Official, the required automatic sprinkler system may be omitted.

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

Exception: When the cost of installing an approved automatic sprinkler system exceeds 5% of the cost of the cost of the addition, with the approval of the Fire Code Official, the required automatic sprinkler system may be omitted.

Section 903.3.1.1.1 Exempt locations is hereby amended by revising exception 4 as follows:

Exception:

4. When approved by the fire code official spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by fire barriers consisting of not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than

2-hour horizontal assemblies constructed in accordance with Section 712, or both.

Section 903.4 Sprinkler system supervision and alarms is hereby revised by modifying item 1, deleting item 3 and 5, and renumbering the Exceptions as follows:

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

Section 904.3.5 Monitoring is hereby revised as follows:

904.3.5 Monitoring. Where a building fire alarm or monitoring system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm or monitoring system in accordance with NFPA 72.

Section 905.4 Location of Class I standpipe hose connections is hereby amended by adding items 7 and 8 as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by

the fire code official. See Section 909.20.3.2 for additional provisions in smokeproof enclosures.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exception: Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a nozzle attached to 100 feet (30 480 mm) of hose, as measured along the path of travel a hose connection shall not be required at the horizontal exit.

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall.
5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3 percent slope), each standpipe shall be provided with a hose connection located either on the roof or at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations. The distance from a hose connection shall be measured along the path of travel.
7. The centerline of the 2.5 inches (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) above and no more than 24 inches above the finished floor.
8. Every new building with any horizontal dimensions greater than 300 feet (91,440 mm) shall be provided with either access doors or a 2.5 inches outlets so that all portions of the building can be reached with 150 feet (46 m)) of hose from an access door or hose outlet. Required access doors shall be located in the exterior of the building and shall be accessible without the use of a ladder. The door dimensions shall be not less than 3 feet (914 mm) in width, and not less than 6 feet 8 inches (2032 mm) in height. These doors are for fire department access only.

Section 907.2.13 High-rise buildings is hereby revised as follows:

907.2.13 High-rise buildings HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET (16 769 mm) ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access. High-rise buildings having occupied floors located more than 55 feet (16 769 mm) above the lowest level of fire department vehicle

access and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access shall be provided with an automatic smoke detection in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. *Airport traffic control towers in accordance with Section 907.2.22 and Section 412 of the California Building Code.*
2. *Open parking garages in accordance with Section 406.3 of the California Building Code.*
3. *Buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the California Building Code.*
4. *Low-hazard special occupancies in accordance with Section 503.1.1 of the California Building Code.*
5. *In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the emergency voice/alarm communication system*

Section 907.4.1 Duct smoke detectors is hereby amended as follows:

907.4.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is installed. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and

shall perform the intended fire safety function in accordance with this code and the California Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

Exception:

- 1. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.*

Section 907.6.2.2 Emergency voice/alarm communication system is revised as follows.

907.6.2.2 Emergency voice/alarm communication system. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler water-flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's plans required by Section 404. In high-rise buildings having occupied floors located more than 55 feet, and Group I-2 occupancies having floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Exit stairways.
3. Each floor.
4. Areas of refuge as defined in Section 1002.1.
5. Dwelling Units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-1 and R-2.1 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section 907.7.3.2 High-rise buildings is revised as follows.

907.7.3.2 High-rise buildings. High-rise buildings having occupied floors located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access and Group I-2 occupancies having occupied floors located more than 75 feet (22 860 mm) above the lowest level fire department vehicle access, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes
4. Other approved types of automatic detection devices or suppression systems.

Section 910.3.2.2 Sprinklered buildings is hereby amended as follows:

910.3.2.2 Sprinklered Buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by actuation of a heat-responsive device rated at least

100° F above the operating temperature of the sprinkler, unless otherwise approved.

Section 3-3-12. Chapter 10

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

Section 3-3-13. Chapter 11

Chapter 11 Aviation Facilities is adopted in its entirety with the following amendments:

Section 1102.1 Definitions is hereby amended by adding the following definitions:

APPROACH-DEPARTURE PATH. The flight path of the helicopter as it approaches or departs from the landing pad.

EMERGENCY HELICOPTER LANDING FACILITY (EHLF). A landing area on the roof of a high rise building that is not intended to function as a heliport or helistop but is capable of accommodating fire or medical helicopters engaged in emergency operations.

SAFETY AREA. A defined area surrounding the landing pad which is free of obstructions.

TAKEOFF AND LANDING AREA. The combination of the landing pad centered within the surrounding safety area.

Section 1108 EHLF is hereby amended by adding the following subsections:

SECTION 1108

Emergency Helicopter Landing Facility (EHLF)

Section 1108.1 through 1108.1. 11 are hereby added as follows:

1108.1 General. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 ft above the

lowest level of the fire department vehicle access shall have a rooftop emergency helicopter landing facility (EHLF) in a location approved by the fire code official for use by fire, police, and emergency medical helicopters only.

1108.1.1 Rooftop Landing Pad. The landing pad shall be 50 ft. x 50 ft. or a 50 ft. diameter circle that is pitched or sloped to provide drainage away from access points and passenger holding areas at a slope of 0.5 percent to 2 percent. The landing pad surface shall be constructed of approved non-combustible, nonporous materials. It shall be capable of supporting a helicopter with a maximum gross weight of 15,000 lbs. For structural design requirements, see California Building Code.

1108.1.2 Approach-Departure Path. The emergency helicopter landing facility shall have two approach-departure paths separated from each other by at least 90 degrees. No objects shall penetrate above the approach-departure paths. The approach-departure path begins at the edge of the landing pad, with the same width or diameter as the landing pad and is a rising slope extending outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

1108.1.3 Safety Area. The safety area is a horizontal plane level with the landing pad surface and shall extend 25 ft in all directions from the edge of the landing pad. No objects shall penetrate above the plane of the safety area.

1108.1.4 Safety Net. If the rooftop landing pad is elevated more than 30 in. (2'-6") above the adjoining surfaces, a 6 ft in wide horizontal safety net capable of supporting 25 lbs/psf shall be provided around the perimeter of the landing pad. The inner edge of the safety net attached to the landing pad shall be

slightly dropped (greater than 5 in. but less than 18 in.) below the pad elevation. The safety net shall slope upward but the outer safety net edge shall not be above the elevation of the landing pad.

1108.1.5 Take-off and Landing Area. The takeoff and landing area shall be free of obstructions and 100 ft x 100 ft. or 100 ft. diameter.

1108.1.6 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

1108.1.7 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 1108.1.7

1108.1.8 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

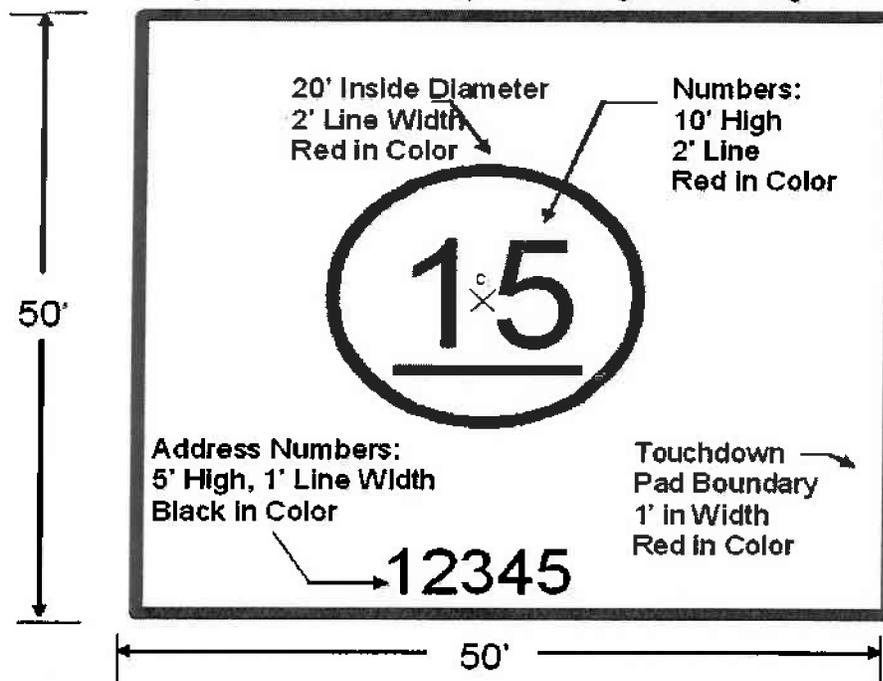
1108.1.9 Standpipe systems. The standpipe system shall be extended to the roof level on which the EHLF is located. All portions of the EHLF area shall be within 150 feet of a 2.5-inch outlet on a Class I or III standpipe.

1108.1.10 Fire extinguishers. A minimum of one portable fire extinguisher having a minimum 80-B:C rating shall be provided and located near the stairway or ramp to the landing pad. The fire extinguisher cabinets shall not penetrate the approach-departure paths, or the safety area. Installation, inspection, and maintenance of extinguishers shall be in accordance with the CFC, Section 906.

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1108.1.11 EHLF. Fueling, maintenance, repairs, or storage of helicopters is prohibited.

Figure 1108.1.7 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled, red numbers indicate the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be oriented towards the preferred flight (typically facing the prevailing wind).

Section 3-3-14. Chapter 12

Chapter 12 Dry Cleaning is adopted in its entirety without amendments.

Section 3-3-15. Chapter 13

Chapter 13 Combustible Dust-Producing Operations is adopted in its entirety without amendments.

Section 3-3-16. Chapter 14

Chapter 14 Fire Safety During Construction and Demolition is adopted in its entirety without amendments.

Section 3-3-17. Chapter 15

Chapter 15 Flammable Finishes is adopted in its entirety without amendments.

Section 3-3-18. Chapter 16

Chapter 16 Fruit and Crop Ripening is adopted in its entirety without amendments.

Section 3-3-19. Chapter 17

Chapter 17 Fumigation and Thermal Insecticidal Fogging is adopted in its entirety without amendments.

Section 3-3-20. Chapter 18

Chapter 18 Semiconductor Fabrication Facilities is adopted in its entirety without amendments

Section 3-3-21. Chapter 19

Chapter 19 Lumber Yards and Woodworking Facilities is adopted in its entirety with the following amendments:

Section 1901.2 Permit is hereby revised by adding the following statement to the last sentence:

1901.2 Permit. Permits shall be required as set forth in Section 105.6. For Miscellaneous Combustible Storage Permit, see Section 105.6.29.

Section 1908.1 General is hereby revised as follows:

1908.1 General. The storage and processing of more than 400 cubic feet of wood chips, hogged materials, fines, compost, green waste, and raw product

produced from yard waste, debris and recycling facilities shall comply with Sections 1908.2 through 1908.10.

Section 1908.2 Storage site, is hereby revised as follows:

1908.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from fire code official is obtained before transferring products to the site.

Section 1908.3 Size of piles is hereby revised as follows:

1908.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

Section 1908.7 Pile fire protection is hereby revised by adding the following statement to the last sentence:

1908.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

Section 1908.9 Material-handling equipment, is hereby revised by adding the following sentence at the beginning of the section:

1908.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

Section 3-3-22. Chapter 20

Chapter 20 Manufacture of Organic Coatings is adopted in its entirety without amendments.

Section 3-3-23. Chapter 21

Chapter 21 Industrial Ovens is adopted in its entirety without amendments.

Section 3-3-24. Chapter 22

Chapter 22 Motor Fuel-Dispensing Facilities and Repair Garages is adopted in its entirety without amendments.

Section 3-3-25. Chapter 23

Chapter 23 High-Piled Combustible Storage shall be adopted in its entirety with the following amendments.

Section 2308.3 Flue spaces is hereby amended by adding the following statement to the last sentence:

2308.3 Flue spaces. Flue spaces shall be provided in accordance with Table 2308.3. Required flue spaces shall be maintained. In double-row racks a pallet/commodity stop shall be provided along the longitudinal flue space at each level. The stop shall be steel or other ferrous material ¼ inch thick and in the mounted position shall extend a minimum of 4 inches above the shelf or cross member, or other method approved by fire code official, In double row racks and where products are hand-stacked chain link shall be securely attached to the rear of both racks. Chain link shall be a minimum of 12 gauge. Attachment method shall be in compliance with Figure 2308.3 or other methods as approved by the fire code official.

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Table 2308.3 Required Flue Spaces for Rack Storage is hereby revised as follows:

Table 2308.3 Required Flue Spaces for Rack Storage

Rack Configuration	Fire Sprinkler		Sprinklers at the Ceiling with or Without Minimum In-Rack Sprinklers			In-Rack Sprinklers at Every Tier	No-Sprinklered
			≤25 Feet		25 Feet		
			Option 1	Option 2			
Single Row Rack	Transverse Flue Space	Size ^b	3 Inch	NA	3 Inch	NR	NR
		Vertically Aligned	NR	NA	Yes	NA	
	Longitudinal Flue Space	NR	NA	NR	NR		
Double Rack Row	Transverse Flue Space	Size ^a	6 Inch ^{a,c}	3 Inch	3 Inch	NR	
		Vertically Aligned	NR	NR	Yes	NA	
	Longitudinal Flue Space	NR	6 Inch	6 Inch	NR		
Multi-row Rack	Transverse Flue Space	Size ^b	6 Inch ^b	NA	6 Inch	NR	
		Vertically Aligned	NR	NA	Yes	NA	
	Longitudinal Flue Space	NR	NA	NR	NR		

NR = "not required." NA means "not applicable."

^a Three-inch transverse flue spaces shall be provided at least every 10 feet where ESFR sprinkler protection is provided.

^b Random variations are allowed, provided that the configuration does not obstruct water penetration.

^c Transverse flue space shall be maintained by mechanical means as approved.^{///}

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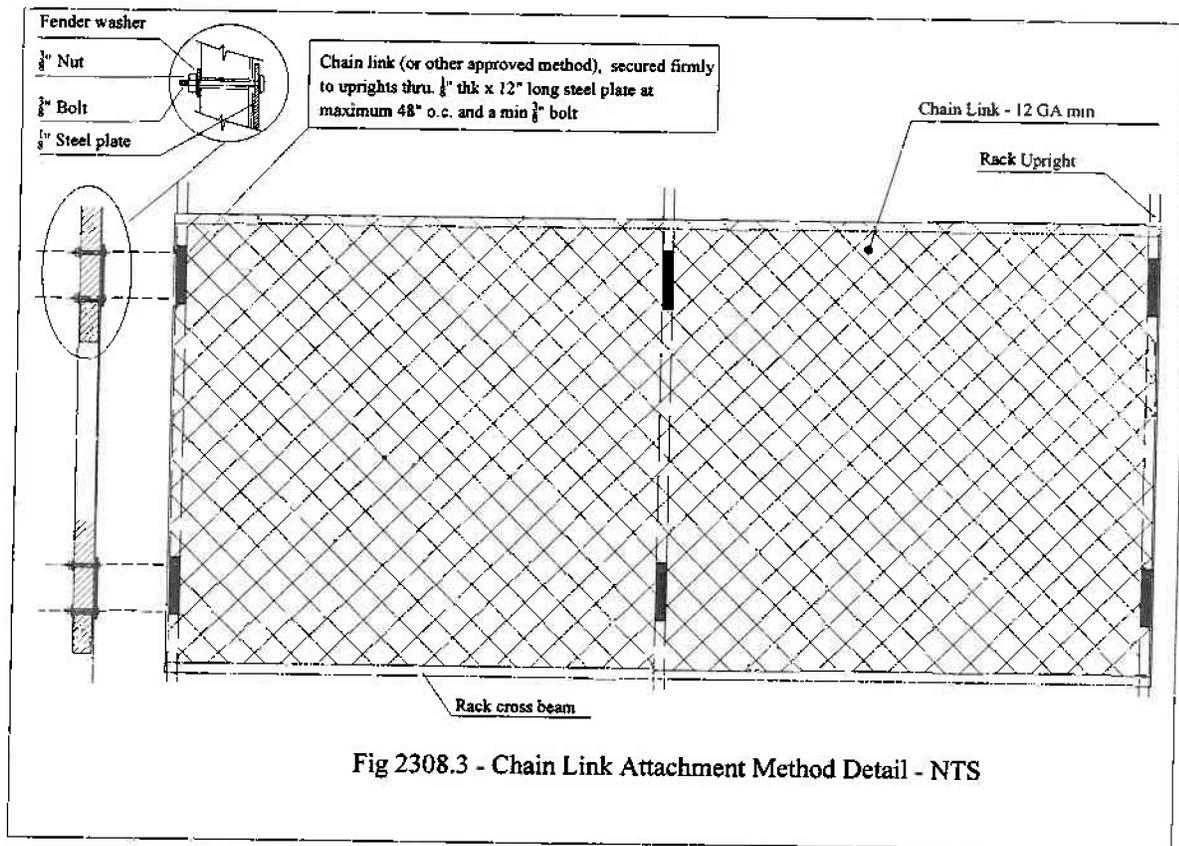
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Section 3-3-26. Chapter 24

Chapter 24 Tents, Canopies, and Other Membrane Structures is adopted in its entirety without amendments.

Section 3-3-27. Chapter 25

Chapter 25 Tire Rebuilding & Tire Storage is adopted in its entirety without amendments.

Section 3-3-28. Chapter 26

Chapter 26 Welding and Other Hot Works is adopted in its entirety without amendments.

Section 3-3-29. Chapter 27

Chapter 27 Hazardous Materials – General Provisions is adopted in its entirety with the following amendments.

Section 2701.5.2 Hazardous Materials Inventory Statement (HMIS), is hereby amended by modifying the starting paragraph as follows:

2701.5.2 Hazardous Materials Inventory Statement (HMIS). When required by the *fire code official*, an application for a permit shall include Orange County Fire Authority's Chemical Classification Packet which shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises. The HMIS shall include the following information:

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

Table 2703.1.1(1) Maximum Allowable Quantity per Control Area is hereby amended by deleting Footnote K without replacement as follows:

Section 2703.1.1.1 Extremely Hazardous Substances is hereby added as follows:

2703.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

Section 2703.5 Hazard identification signs is hereby amended by modifying the NFPA standard as follows:

2703.5 Hazard identification signs. Unless otherwise exempted by the fire code official, visible hazard identification signs as specified in the Orange County Fire Authority Signage Guidelines for the specific material contained shall be placed on stationary containers and above-ground tanks and at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit and at specific entrances and locations designated by the fire code official.

Section 3-3-30. Chapter 28

Chapter 28 Aerosols is adopted in its entirety without amendments.

Section 3-3-31. Chapter 29

Chapter 29 Combustible Fibers is adopted in its entirety without amendments.

Section 3-3-32. Chapter 30

Chapter 30 Compressed Gases is adopted in its entirety without amendments.

Section 3-3-33. Chapter 31

Chapter 21 Corrosive materials is adopted in its entirety without amendments.

Section 3-3-34. Chapter 32

Chapter 32 Cryogenic Fluids is adopted in its entirety with the following amendment.

Section 3203.4.1 Identification signs is hereby revised as follows:

3203.4.1 Identification signs. Visible hazard identification signs in accordance with the Orange County Fire Authority Signage Guidelines shall be provided at entrances to buildings or areas in which cryogenic fluids are stored, handled or used.

Section 3-3-35. Chapter 33

Chapter 33 Explosives and Fireworks California Fire Code Chapter 33 is adopted in its entirety with the following amendments

Section 3301.2 Retail Fireworks is hereby added as follows:

33101.2 Retail Fireworks. The storage, use, sale, possession, and handling of fireworks 1.4G (commonly referred to as Safe & Sane) and fireworks 1.3G is prohibited.

Exception – Fireworks 1.4G and fireworks 1.3G may be part of an electrically fired public display when permitted and conducted by a licensed pyrotechnic operator

Section 3301.3 Seizure of Fireworks is hereby added as follows:

3301.3 Seizure of Fireworks. The fire code official shall have the authority to seize, take, remove all fireworks stored, sold, offered for sale, used or handled in violation of the provisions of Title 19 CCR, Chapter 6. Any seizure or removal pursuant to this section shall be in compliance with all applicable statutory, constitutional, and decisional law.

Section 3308.1 General is hereby revised as follows:

3308.1 GENERAL. Outdoor fireworks displays, use of pyrotechnics before proximity audience and pyrotechnic special effects in theatrical, and group entertainment productions, shall comply with California Code of Regulations, Title 19 , Division 1, Chapter 6 – Fireworks, the Orange County Fire Authority

Guidelines for Public Fireworks Displays, and with the conditions of the permit as approved by the fire code official.

Section 3308.2 Firing is hereby added as follows:

3308.2 Firing. All fireworks displays shall be electrically fired.

Section 3-3-36. Chapter 34

Chapter 34 Flammable and Combustible Liquids is adopted in its entirety with the following amendment.

Section 3404.2.3.2 Label or placard is hereby amended by modifying the NFPA standard as follows:

3404.2.3.2 Label or placard. Tanks more than 100 gallons (379 L) in capacity, which are permanently installed or mounted and used for the storage of Class I, II or III liquids, shall bear a label and placard identifying the material therein. Placards shall be in accordance with the Orange County Fire Authority Signage Guidelines.

Section 3-3-37. Chapter 35

Chapter 35 Flammable Gases is adopted in its entirety without amendments.

Section 3-3-38. Chapter 36

Chapter 36 Flammable Solids is adopted in its entirety without amendments.

Section 3-3-39. Chapter 37

Chapter 37 Highly Toxic and Toxic Materials is adopted in its entirety with the following amendments.

Section 3704.2.2.7 Treatment system is hereby amending the exception as follows:

Exception:

1. Toxic gases – storage/use. Treatment systems are not required for toxic gases supplied by cylinders or portable tanks not exceeding 1,700 pounds (772 Kg) water capacity when the following are provided;

1.1 A listed or approved gas detection system with a sensing interval not exceeding 5 minutes.

1.2 For storage, valve outlets are equipped with gas-tight outlet plugs or caps.

1.3 For use, an approved listed or approved automatic-closing fail-safe valve located immediately adjacent to cylinder valves. The fail-safe valve shall close when gas is detected at the permissible exposure limit (PEL) by a gas detection system monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure or gas room. The gas detection system shall comply with Section 3704.2.2.10.

Section 3-3-40. Chapter 38

Chapter 38 Liquefied Petroleum Gases is adopted in its entirety without amendments.

Section 3-3-41. Chapter 39

Chapter 39 Organic Peroxides is adopted in its entirety without amendments.

Section 3-3-42. Chapter 40

Chapter 40 Oxidizers is adopted in its entirety without amendments.

Section 3-3-43. Chapter 41

Chapter 41 Pyrophoric Materials is adopted in its entirety without amendments.

Section 3-3-44. Chapter 42

Chapter 42 Pyroxylin Plastics is adopted in its entirety without amendments.

Section 3-3-45. Chapter 43

Chapter 43 Unstable (Reactive) Materials is adopted in its entirety without amendments.

Section 3-3-46. Chapter 44

Chapter 44 Water-Reactive Solids and Liquids is adopted in its entirety without amendments.

Section 3-3-47. Chapter 45

Chapter 45 Marinas is adopted in its entirety with the following amendments.

Section 4503.7 Slip Identification is revised as follows:

Section 4503.7 Slip identification. Slips and mooring spaces shall be individually identified by an approved numeric or alphabetic designator. Space designators shall be posted at the space. Signs indicating the space designators located on finger piers and floats shall be posted at the base of all piers, finger piers, floats and finger floats. A monument sign shall be installed at each gate designating slip and mooring spaces in contrasting colors.

Section 4504.2 Standpipes is hereby revised by adding section 4504.2.2 as follows:

4504.2.2 All standpipes exposed to the outside elements shall be painted for corrosion protection.

Exception: Stainless Steel (316 Grade) Standpipes

Section 3-3-48. Chapter 46

Chapter 46 Construction Requirements for Existing Buildings is adopted by only those Sections and Subsections listed below:

- 1. Section 4606**
- 2. Subsection 4603.6**
- 3. Subsection 4603.6.3**

4. **Subsection 4603.6.3.1**
5. **Subsection 4603.6.8 through 4603.6.8.2**
6. **Subsection 4603.6.9 through 4603.6.9.10**
7. **Subsection 4603.7 through 4603.7.5.3**

Section 3-3-49. Chapter 47

Chapter 47 Referenced Standards is adopted in its entirety with the following amendments to the National Fire Protection Association Standards:

NFPA 13, 2010 Edition, Installation of Sprinkler Systems is hereby amended as follows:

Section 6.8.3 is hereby revised as follows:

6.8.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 ½" inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The size of piping and the number of inlets shall be approved by the chief. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided. FDC may be located within 150 feet of a private fire hydrant when approved by the chief.

Section 8.3.3.1 is hereby revised as follows:

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

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

Section 8.17.1.1.1 is hereby added as follows

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

Section 8.17.2.4.6 is hereby revised as follows:

8.17.2.4.6 Fire department connections shall be on the street side of buildings and shall be located and arranged so that they are immediately adjacent to the approved fire department access road and that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fence, posts, or other fire department connections.

Section 11.1.1.2 is hereby added as follows:

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

Section 11.2.3.1.1.1 is hereby added as follows:

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

- 1) Subtract the project site elevation from the low water level for the appropriate pressure zone and multiplying the result by 0.433;
- 2) Use a maximum of 40 psi, if available;
- 3) Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or a professional engineer licensed in the State of California. The result shall be adjusted in accordance with the graduated scaled found in the guideline.

Section 22.1.3 (43) is hereby revised as follows:

Section 22.1.3 (43) Size and location of hydrants, showing size and number of outlets and if outlets are to be equipped with independent gate valves. Whether hose houses and equipment are to be provided, and by whom, shall be

indicated. Static and residual hydrants that were used in the flow tests shall be shown. Flow test shall be completed within six months of the plan submittal to the authority having jurisdiction.

NFPA 13R 2010 Edition Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height is hereby amended as follows:

Section 6.16.1 is hereby revised as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in Section 907.2.8 of the 2010 California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Sound levels in all sleeping areas shall be a minimum of 15 dBA above the average ambient sound or a minimum of 75 dBA with all intervening doors closed. Alarms shall be audible within all other living areas within each dwelling unit. When not connected to a fire alarm or water-flow monitoring system, audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

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

Section 6.6.6 is hereby revised as follows:

Section 6.6.6 Sprinklers shall not be required in penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to containing only dwelling unit ventilation equipment, crawl spaces, floor/ceiling spaces, noncombustible elevator shafts where the elevator cars comply with ANSI A17.1, Safety Code for Elevators and Escalators, and other concealed spaces that are not used or intended for living purposes or storage and do not contain fuel fired equipment.

Section 6.6.9 is hereby added as follows:

6.6.9 Sprinklers shall not be required in attics that are not located over dwelling units. When attics are separated by unit, each unit's attic space may be protected per NFPA 13D Section 8.6.4.2. All other attics shall be protected per NFPA 13.

NFPA 13D 2010 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes is hereby amended as follows:

Section 4.1.5 is hereby added as follows:

4.1.5 Stock of Spare Sprinklers

Section 4.1.5.1 is hereby added as follows:

4.1.5.1. A supply of at least two sprinklers for each type shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

Section 4.1.5.2 is hereby added as follows:

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

Section 4.1.5.3 is hereby added as follows:

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

Section 4.1.5.4 is hereby added as follows:

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

Section 7.1.2 is hereby revised as follows:

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

Section 7.3.1 is hereby deleted in its entirety and replaced as follows:

7.3.1 At least one water pressure gauge shall be installed on the riser assembly.

Section 7.6 is hereby deleted in its entirety and replaced as follows:

7.6 Alarms Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide audibility throughout the structure. Sound levels in all sleeping areas with all intervening doors closed shall be a minimum

of 15 dBA above the average ambient sound level but not less than 75 dBA.

Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exception:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.
2. When smoke detectors specified under CBC Section 310.9 are used to sound an alarm upon waterflow switch activation.

Section 8.6.4.2 is hereby added as follows:

8.6.4.2 All attics shall be protected with an intermediate temperature quick response sprinkler which shall be located to protect attic penetrations created by the access scuttles or mechanical equipment

NFPA 14, 2007 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

Section 6.4.5.4.1 is hereby deleted in its entirety and replaced as follows:

6.4.5.4.1 The fire department connection shall have a minimum of two 2 ½ inches, internal threaded (NHS) inlets. Additional inlets shall be provided on a 250 GPM per inlet ratio to meet the system demand. The inlets shall be provided with approved caps to protect the system from entry of debris. The location of the FDC shall be approved and be no more than 150 feet from a public hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red.

Section 7.3.1.1 is hereby is deleted in its entirety and replaced as follows:

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

NFPA 24, 2010 Edition, Installation of Private Fire Service Mains and Their

Appurtenances is hereby amended as follows:

Section 5.9.1.3 is hereby revised as follows:

5.9.1.3 The fire department connection shall be of an approved type and contain a minimum of two 2 ½ inch inlets. The location shall be approved and be no more than 150 feet from a public fire hydrant. If acceptable to the water authority, it may be installed on the backflow assembly. The supply pipe shall be painted OSHA safety red.

Section 5.9.1.3.1 is hereby added as follows:

5.9.1.3.1 When the sprinkler density design is 500 gpm (including the interior hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

Section 5.9.1.3.2 is hereby added as follows:

5.9.1.3.2 The fire department connection (FDC) may be located within 150 feet of a private fire hydrant provided the FDC connects down-stream of an aboveground sprinkler system check valve.

Section 6.2.1.1 is hereby added as follows:

6.2.1.1 The closest upstream indicating valve to the riser shall be painted OSHA red.

Section 6.2.11 (5) is hereby deleted without replacement:

Section 6.2.11 (6) is hereby revised as follows:

6.2.11 (5) Control valves in a one-hour fire-rated room accessible from the exterior

Section 6.2.11 (7) is hereby deleted without replacement:

Section 6.3.3 is hereby added as follows:

Section 6.3.3 All post indicator valves controlling fire suppression water supplies shall be painted OSHA red.

Section 10.1.6.3 is hereby added as follows:

10.1.6.3 All ferrous pipe shall be coated and wrapped. Joints shall be coated and wrapped after assembly. All fittings shall be protected with a loose 8-mil polyethylene tube. The ends of the tube shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

Exception: 316 Stainless Steel pipe and fittings

Section 10.3.5.2 is hereby revised as follows:

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

Section 10.3.5.3 is hereby added as follows:

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

Section 10.6.3.1 is hereby revised as follows:

10.6.3.1 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 18 inches, as measured from

the interior of the exterior wall. The pipe under the building or building foundation shall be 316 stainless steel and shall not contain mechanical joints or comply with 10.6.2.

Section 10.6.5 is hereby revised as follows:

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

NFPA 72, 2010 Edition National Fire Alarm Code

Section 14.2.1.2.3 is hereby revised as follows:

14.2.1.2.3 If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner's designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

Section 23.8.2 Fire Alarm Control Units is revised as follows:

23.8.2.2 Except as permitted in 23.8.2.3, the fire alarm systems components shall be permitted to share control equipment or shall be able to operate as stand-alone subsystems, but in any case, they shall be arranged to function as a single system and send a single signal to a central, remote, or proprietary station.

Section 23.8.2.3 is hereby deleted without replacement:

Section 26.2.3.1 is hereby amended by modifying the start paragraph as follows:

26.2.3.1 Supervising station customers or clients and the fire code official shall be notified in writing within 7 days of any scheduled change in service

that results in signals from their property being handled by a different supervising station facility.

Section 3-3-50. Chapter 48

Chapter 48 Motion Picture and Television Production Studio Sound Stages, Approved Production Facilities, and Production Locations is adopted in its entirety without amendments.

Section 3-3-51. Chapter 49

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

Section 4906.3 Vegetation is hereby revised by adding Section "(5)" as follows:

(5) OCFA Vegetation Management Guideline.

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

4908 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in hazardous fire areas shall comply with the following:

1. Preliminary fuel modification plans shall be submitted to and approved by the fire code official concurrent with the submittal for approval of any tentative map.
2. Final fuel modification plans shall be submitted to and approved by the fire code official prior to the issuance of a grading permit.
3. The fuel modification plans shall meet the criteria set forth in the Fuel Modification Section of the Orange County Fire Authority Vegetation Management Guidelines.
4. The fuel modification plan may be altered if conditions change. Any alterations to the fuel modification areas shall have prior approved by the fire code official.

5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

Section 4909 Explosives and Blasting is hereby added as follows:

4909 Explosives and Blasting. Explosives shall not be possessed, kept, stored, sold, offered for sale, given away, used, discharged, transported or disposed of within wildland-urban interface areas, or hazardous fire areas except by permit from the fire code official.

Section 3-3-52. Appendix B

Appendix B is adopted in its entirety with the following amendment:

Section B105.1 One- and two-family dwellings is hereby added as follows:

B105.1 One- and two-family dwellings. The minimum fire-flow and flow duration requirements for one- and two-family dwellings having a fire-flow calculation area that does not exceed 3,600 square feet (344.5m²) shall be 1,000 gallons per minute (3785.4 L/min) for 1 hour. Fire-flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5m²) shall not be less than that specified in Table B105.1.

Exception: When the building is equipped with an approved automatic sprinkler system, the fire flow requirements of Table B105.1 are reduced by 50%, provided that the resulting fire flow is not less than 1,000 gallons per minute (3785.4 L/min) for 1 hour.

Section 3-3-53. Appendix BB

Appendix BB is adopted in its entirety without amendments:

Section 3-3-54. Appendix C

Appendix C is adopted in its entirety without amendments;

Section 3-3-55. Appendix CC

Appendix CC is adopted in its entirety without amendment

**RESOLUTION TO THE BOARD OF SUPERVISORS OF
ORANGE COUNTY, CALIFORNIA**

January 25, 2011

WHEREAS, Section 101.3 of the California Building Code states that the purpose of the Code is to provide the minimum requirements to safeguard the public health, safety and general welfare, and to provide safety to fire fighters and emergency responders during emergency operations; and

WHEREAS, Health and Safety Code Section 17958.5 permits the County to make changes or modifications in the California Building Code which are reasonably necessary because of local climatic, geological and topographical ; and

WHEREAS, Health and Safety Code Sections 17958.7 requires the County Board of Supervisors to make express findings of the necessity for modifications to the California Building Code before adopting such changes; and

WHEREAS, OC Public Works of the County of Orange recommended adoption for an Ordinance repealing the International Building Code, 2006 Edition, California Building Code, 2007 Edition, Ordinance 08-005 and adopting by reference the California Building Code, 2010 Edition, the International Building Code, 2009 Edition, the California Residential Code, 2010 Edition, and the California Green Building Standards Code, 2010 Edition, with amendments thereto; and

WHEREAS, said Ordinance will amend Article 2 of Division 1 of Title 7 of the Orange County Codified Ordinances;

NOW THEREFORE, BE IT RESOLVED that the Ordinances and amendments to Article 2 of Division 1 of Title 7 of the Orange County Codified Ordinances are hereby found necessary as follows:

A. SUMMARY

1. Sections 7-1-12 through 7-1-25, Sections 7-1-28 through 7-1-29. These amendments are administrative in nature and allow for the local administration of building regulations. Administrative requirements are not subject to findings of the necessity for local climatic, geological and topographical conditions. These amendments include procedures for administrative hearings, Hearing Officer appeals, underground utilities, violations, permit issuance, plan check/permit expiration and special inspections, all of which enable the local jurisdiction to administer and enforce the Code. These amendments are carryovers from the previous Ordinance.

2. Sections 7-1-26 and 7-1-27. These amendments require special fasteners for roof tiles and fire resistive roofing materials. These amendments continue the existing requirements for roofing material.
3. Section 7-1-30. This amendment adds definition of new/existing high-rise buildings requiring buildings having floors located more than 55' above the lowest level to meet high-rise requirements, and removes smoke proof enclosures from standby power load and add to emergency power load. This amendment continues the existing requirements.
4. Section 7-1-31 and 7-1-32. These amendments define emergency helicopter landing facilities and provisions to such facility. These amendments continue existing Fire Code requirements.
5. Sections 7-1-33 and 7-1-34. These amendments continue existing requirements for sprinkler protection in existing Group R detached one and two family dwellings in excess of 5500 square feet in gross areas, after room additions of more than 550 square feet. Other buildings in excess of 5000 square feet in gross area or more than two stories are required to have fire sprinkler protection.
6. Section 7-1-35. This amendment allows for sprinkler protection exempt locations in telecommunication buildings. This amendment is a carry over from previous Fire Code amendment.
7. Sections 7-1-36 and 7-1-37. These amendments continue existing requirements for sprinkler system supervision and alarms, and monitoring of fire extinguisher systems
8. Section 7-1-38. This amendment continues existing requirements for location of stand-pipe hose connections and location of access doors.
9. Section 7-1-39 and 7-1-42. These amendments continue existing modifications for high-rise height from 75 feet and clarify duct smoke detectors, emergency voice alarm communication systems and high-rise alarm initiating devices.
10. Section 7-1-43. This amendment clarifies the existing requirement for activation of smoke and heat vents with a heat-responsive device, and allows for exception.
11. Section 7-1-44. This amendment continues existing Fire Code requirements for modifications to referenced standards in installation of sprinkler systems, stand-pipe hose systems, private fire service mains, appurtenances and fire alarm systems.
12. Section 7-1-45. This new amendment requires a five foot fence around a swimming pool with exception that the fence between the house and the

pool is not required if doors are installed with alarm or self-closing/self latching device, or pool safety cover is provided.

13. Section 7-1-46. This new amendment provides seismic evaluation and design procedures for repairs of damaged structures due to disasters, such as strong winds or earthquakes.
14. Section 7-1-47. This new amendment defines specific design criteria such as wind speed, seismic design category, flood hazard zones, etc.
15. Sections 7-1-48, 7-1-49, 7-1-52 and 7-1-53. These new amendments provide the same amendments in the California Residential Code to be consistent with the amendments in the California Building Code.
16. Sections 7-1-50 and 7-1-51. These new amendments delete exceptions in the Code allowing for unreinforced footing and retaining walls without drains.
17. Section 7-1-54. This new amendment adds a definition to clarify the term "sustainability".
18. Section 7-1-55. This new amendment clarifies that automatic irrigation controllers for landscaping installed at the time of final inspection comply with water saving standards.

B. FINDINGS OF LOCAL CONDITIONS

The amendments contained in the Ordinance adopting the California Building Code and related regulations described herein are necessary to provide better fire protection, structural safety, stronger roof tile fasteners and better swimming pool fencing, due to the following local conditions:

I. CLIMATIC CONDITIONS:

- A. The jurisdiction of Unincorporated Orange County is located semi-arid Mediterranean type climate. It annually experiences extended dry periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These strong (Santa Ana) wind conditions may blow off roof tiles and cause property damage. High temperatures during the summer time would increase the risk of pool drowning due to more frequent use of swimming pools.
- B. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to

disrupt utility service throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirements to climb 75 feet vertically up flights stairs will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type of fire fighting apparatus above this height would place rescue personnel at increased risk of injury.

- C. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange County Fire Authority's ability to respond to a fire or emergency condition. Floods also disrupt utility service to buildings and facilities within the County.
- D. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly ten million over the next quarter of a century with 50% of that growth centered in Southern California. Due to storage capacities and consumption, and a limited amount of rainfall, future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to the lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.
- E. These dry climatic conditions and winds contribute to a rapid spread of even small fires originating in high-density housing or vegetation. These fires spread very quickly and create a need for increased levels of fire protection. The added protection of fire sprinkler systems and other fire protection features will supplement normal fire department response by providing immediate protection for the building occupants and by containing and controlling the fire spread to the area of origin. Fire sprinkler systems will also reduce the use of water for fire fighting by as much as 50% to 75%.

II. TOPOGRAPHICAL CONDITIONS

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

- B. Traffic and circulation congestion is an artificially created, obstructive topographical condition, which is common throughout Orange County.
- C. These topographical conditions combine to create a situation, which places the fire department response time to fire occurrences at risk, and makes it necessary to provide automatic on-site fire-extinguishing systems and other protection measures to protect occupants and property.

III. GEOLOGICAL CONDITIONS

The Orange County region is a densely populated area that has buildings constructed over and near a vast and complex network of faults that are believed to be capable of producing future earthquakes similar or greater in size of the 1994 Northridge and the 1971 Sylmar earthquakes. Earthquake faults run along the northeast and southwest boundaries of Orange County. The Newport-Inglewood Fault, located within Orange County was a source of the destructive 1933 Long Beach earthquake (6.3 magnitude) which took 120 lives and damaged buildings in an area from Laguna Beach to Marina Dey Rey to Whittier. In December 1989, another earthquake occurred in the jurisdiction of the City of Irvine at an unknown earthquake fault. Regional planning for reoccurrence of earthquakes is recommended by the State of California, Department of Conservation.

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

- B. Road circulation features located throughout the County also make amendments reasonably necessary. Located throughout the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanied with occasional heavy rainfall, cause roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended emergency response times that exceed the five minute goal.
- C. Soils throughout the County possess corrosive properties that reduce the expected useable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of the County contain active or former oil production fields. These areas contain a variety of naturally occurring gasses, liquids and vapors. These compounds present toxicity or flammable hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary to implement appropriate mitigation.

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

NOW THEREFORE BE IT FURTHER RESOLVED that a copy of this Resolution, together with the Ordinance adopting the California Building Code, 2010 Edition, the International Building Code, 2009 Edition, the California Residential Code, 2010 Edition, and the California Green Building Standards Code, 2010 Edition as amended, and related regulations described herein, be filed with the State Department of Housing and Community Development, and the California Building Standards Commission.

The foregoing was passed and adopted by the following vote of the Orange County Board of Supervisors, on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL
NOES: Supervisor(s):
EXCUSED: Supervisor(s):
ABSTAINED: Supervisor(s):

Bill Campbell
CHAIRMAN

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Resolution was duly and regularly adopted by the Orange County Board of Supervisors .

IN WITNESS WHEREOF, I have hereto set my hand and seal.

Darlene J. Bloom
DARLENE J. BLOOM
Clerk of the Board
County of Orange, State of California



Resolution No: 11-009
Agenda Date: 01/25/2011
Item No: 48



I certify that the foregoing is a true and correct copy of the Resolution adopted by the Board of Supervisors , Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

**RESOLUTION TO THE BOARD OF SUPERVISORS OF
ORANGE COUNTY, CALIFORNIA**

January 25, 2011

WHEREAS, Health and Safety Code Section 17958.5 provides for the County to make changes or modifications to the California Plumbing Code as are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Sections 17958.7 requires the County Board of Supervisors to make express findings of the necessity for modifications in the California Plumbing Code before adopting such changes; and

WHEREAS, OC Public Works of the County of Orange has recommended adoption for an Ordinance repealing the Uniform Plumbing Code, 2006 Edition, California Plumbing Code, 2007 Edition, Ordinance 08-006 and adopting by reference the Uniform Plumbing Code, 2009 Edition and the California Plumbing Code, 2010 Edition, with amendments thereto; and

WHEREAS, said Ordinance will amend Article 1 of Division 3 of Title 7 of the Orange County Codified Ordinances;

NOW THEREFORE, BE IT RESOLVED that the Ordinances and amendments to Section 7-3-1 through 7-3-17 of Article 1 of Division 3 of Title 7 of the Orange County Codified Ordinances are hereby found necessary as follows:

- A. Sections 7-3-1 through 7-3-15. These amendments are administrative in nature and allow for local administration of plumbing regulations. Administrative requirements are not subject to findings of necessity for local climatic, geological and topographical conditions. These amendments include procedures for administrative hearings, Hearing Office appeals, violations and permit issuance, all of which enable the local jurisdiction to administer and enforce the Code, and to charge a fee for services rendered. These amendments are carryovers from the previous Ordinance. Changes are made to clarify the requirements and to refer to a separate Ordinance for permit fees.
- B. Section 7-1-16. This amendment prohibits the use of galvanized malleable iron, galvanized wrought iron and galvanized steel due to local water conditions that are detrimental to these materials.
- C. Section 7-1-17. This amendment prohibits the installation of ferrous water piping material due to local water and soil conditions that are detrimental to the material.

BE IT FURTHER RESOLVED that a copy of this Resolution, together with the Ordinance adopting the 2010 California Plumbing Code and the 2009 Uniform Plumbing

1 of 2

Code as amended, be filed with the State Department of Housing and Community Development, and the California Building Standards Commission.

**RESOLUTION TO THE BOARD OF SUPERVISORS OF
ORANGE COUNTY, CALIFORNIA**

January 25, 2011

WHEREAS, Health and Safety Code Section 17958.5 provides for the County to make changes or modifications to the California Mechanical Code as are reasonably necessary because of local conditions; and

WHEREAS, Health and Safety Code Sections 17958.7 requires the County Board of Supervisors to make express findings of the necessity for modifications in the California Mechanical Code before adopting such changes; and

WHEREAS, OC Public Works of the County of Orange recommended adoption for an Ordinance repealing the Uniform Mechanical Code, 2006 Edition, California Mechanical Code, 2007 Edition, Ordinance 08-007 and adopting by reference the Uniform Mechanical, 2009 Edition and the California Mechanical Code, 2010 Edition, with amendments thereto; and

WHEREAS, said Ordinance will amend Article 1 of Division 5 of Title 7 of the Orange County Codified Ordinances;

NOW THEREFORE, BE IT RESOLVED that the Ordinances and amendments to Section 7-5-1 through 7-5-8 of Article 1 of Division 5 of Title 7 of the Orange County Codified Ordinances are hereby found necessary as follows:

Sections 7-5-1 through 7-5-8. These amendments are administrative in nature and allow for the local administration of mechanical regulations. Administrative requirements are not subject to findings of the necessity for local climatic, geological and topographical conditions. These amendments include procedures for administrative hearings, Hearing Officer appeals, violations, and permit issuance, all of which enable the local jurisdiction to administer and enforce the Code, and to charge a fee for services rendered. These amendments are carryovers from the previous Ordinance. Changes are made to clarify the requirements and to refer to a separate Ordinance for permit fees.

BE IT FURTHER RESOLVED that a copy of this Resolution, together with the Ordinance adopting the 2009 Uniform Mechanical Code and adopting the 2010 California Mechanical Code as amended, be filed with the State Department of Housing and Community Development, and the California Building Standards Commission.

The foregoing was passed and adopted by the following vote of the Orange County Board of Supervisors, on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL
NOES: Supervisor(s):
EXCUSED: Supervisor(s):
ABSTAINED: Supervisor(s):

Bill Campbell

CHAIRMAN

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Resolution was duly and regularly adopted by the Orange County Board of Supervisors .

IN WITNESS WHEREOF, I have hereto set my hand and seal.

Darlene J. Bloom

DARLENE J. BLOOM
Clerk of the Board
County of Orange, State of California



Resolution No: 11-011
Agenda Date: 01/25/2011
Item No: 48



I certify that the foregoing is a true and correct copy of the Resolution adopted by the Board of Supervisors , Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

**RESOLUTION TO THE BOARD OF SUPERVISORS OF
ORANGE COUNTY, CALIFORNIA**

January 25, 2011

WHEREAS, Health and Safety Code Section 17958.5 provides for the County to make changes or modifications to the California Electrical Code as are reasonably necessary because of local conditions; and

WHEREAS, Health and Safety Code Sections 17958.7 requires the County Board of Supervisors to make express findings of the necessity for modifications in the California Electrical Code before adopting such changes; and

WHEREAS, OC Public Works of the County of Orange recommended adoption for an Ordinance repealing the National Electrical Code, 2005 Edition, California Electrical Code, 2007 Edition, Ordinance 08-008 and adopting by reference the National Electrical, 2008 Edition and the California Electrical Code, 2010 Edition, with amendments thereto; and

WHEREAS, said Ordinance will amend Article 1 of Division 2 of Title 7 of the Orange County Codified Ordinances;

NOW THEREFORE, BE IT RESOLVED that the Ordinances and amendments to Section 7-2-1 through 7-2-13 of Article 1 of Division 7 of Title 7 of the Orange County Codified Ordinances are hereby found necessary as follows:

Sections 7-2-1 through 7-2-13. These amendments include Article 90 of the 2010 California Electrical Code and the 2008 National Electrical Code. The amendments are administrative in nature and allow for the local administration of electrical regulations. Administrative requirements are not subject to findings of the necessity for local climatic, geological and topographical conditions. These amendments include procedures for enforcement, underground utilities, permits, inspections, Hearing Office appeals, violations, and penalties, all of which enable the local jurisdiction to administer and enforce the 2010 California Electrical Code, and the 2008 National Electrical Code as amended. These amendments are carryovers from the previous Ordinance. Changes are made to clarify the requirements and to refer to a separate Ordinance for permit fees.

BE IT FURTHER RESOLVED that a copy of this Resolution, together with the Ordinance adopting the 2010 California Electrical Code and the 2008 National Electrical Code as amended, be filed with the State Department of Housing and Community Development, and the California Building Standards Commission.

The foregoing was passed and adopted by the following vote of the Orange County Board of Supervisors, on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL
NOES: Supervisor(s):
EXCUSED: Supervisor(s):
ABSTAINED: Supervisor(s):

Bill Campbell

CHAIRMAN

STATE OF CALIFORNIA)
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Resolution was duly and regularly adopted by the Orange County Board of Supervisors .

IN WITNESS WHEREOF, I have hereto set my hand and seal.

Darlene J. Bloom
DARLENE J. BLOOM
Clerk of the Board
County of Orange, State of California



Resolution No: 11-012
Agenda Date: 01/25/2011
Item No: 48



I certify that the foregoing is a true and correct copy of the Resolution adopted by the Board of Supervisors , Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

RESOLUTION OF THE BOARD OF SUPERVISORS OF
ORANGE COUNTY, CALIFORNIA

January 25, 2011

WHEREAS, Section 101.2 of the California Fire Code ("CFC") states that the purpose of the Code is to provide the minimum requirements to safeguard the public health, safety and general welfare, and to provide safety to fire fighters and emergency responders during emergency operations; and

WHEREAS, Health and Safety Code Section 17958.5 permits the County to make changes or modifications in the CFC which are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the Board of Supervisors make express findings of the necessity for modification to the CFC before adopting such changes; and

WHEREAS, the OC Public Works of the County of Orange recommended adoption of an ordinance repealing the California Fire Code, 2007 Edition, International Fire Code, 2006 Edition and Ordinance 08-009, and adopting by reference the California Fire Code, 2010 Edition, with appendix and amendments specified thereto; and

WHEREAS, said Ordinance will amend Article 2 of Division 1 of Title 7 of the Orange County Codified Ordinances; and

WHEREAS, the OC Public Works of the County of Orange Department have recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the CFC is reasonably necessary due to local conditions in the County of Orange.

Amendments related to life and fire safety contained in Sections 304.1.2(7)(E), 305.5, 318, 507.5.1, 604.2.15.1.1, 604.2.15.2.1, 608.10, 610, 903.2, 903.2.8, 903.3.1.1.1, 903.4, 905.4, 907.4.1, 907.6.2.2, 1108.1 thru 1108.1.11, 2308.3, 2703.1.1(1), 2703.1.1.1, 3704.2.2.7, 4503.7, 4504.2.2, Chapter 47, 4906.3, 4908, 4909 of the 2010 Edition of the California Fire Code as recommended by the OC Public Works of the County of Orange are hereby found to be reasonably necessary due to the following local conditions:

NOW, THEREFORE, BE IT RESOLVED that the Ordinance and amendments to amend Article 2 of Division 1 of Title 7 of the Orange County Codified Ordinances are herein found necessary as follows:

A. SUMMARY

1. Section 3-3-3. These amendments are administrative in nature and allow for the local administration of building regulations. Administrative requirements are not subject to findings of the necessity for local climatic, geological or topographical conditions. The amendments include clarifications of

conflicting provisions, compliance, and violations. These amendments are carryovers from the previous Ordinance.

2. Section 3-3-4. These amendments add definitions to require gross floor area for calculation of fire sprinkler areas, buildings having floors located more than 55' above the lowest floor level to meet high-rise requirements, and the method of measuring the width of fire department access roads.
3. Section 3-3-5. These amendments include spark arrestor requirement that is carryover from the previous ordinance, gas mitigation requirements for the developments near land with emitting gases, and several amendments covering the clearance and maintenance requirements of the brush and vegetation growth from road and structures.
4. Section 3-3-6. Adopts specific Sections in Chapter 4 "Fire Emergency Planning and Preparedness" without amendments. The removed Sections are already covered in Title 19, California Code of Regulations.
5. Section 3-3-7. The amendments clarify the specific requirement for the fire department access roads including the minimum road width, obstructions, security gates, building identification, and emergency responder radio coverage in buildings.
6. Section 3-3-8. These amendments include the features to Building Services and Systems. One amendment removes the smoke proof enclosure from the stand-by power load. The other amendments apply to the refrigerant detector, manual operation of automatic crossover valve for the refrigeration system, and the threshold electrolyte requirements for the indoor storage of electric cars.
7. Section 3-3-9. Adopts Chapter 7 "Fire-Resistive –Rated Construction" in its entirety without amendments.
8. Section 3-3-10. Adopts specific Sections in Chapter 8 "Interior Finish, Decorative Materials and Furnishings" without amendments. The removed Sections are already covered in Title 19, California Code of Regulations.
9. Section 3-3-11. These amendments continue existing requirements for sprinkler protection in Group R detached one and two story family dwellings and in townhouses that add on more than 550 square feet and the total gross area exceeds 5500 square feet. Sprinkler protection in non-residential buildings will continue at 5,000 square feet. The rest of the amendments apply to sprinkler protection requirements and exclusion in non-combustible spaces, exceptions for the requirements that fire sprinklers be electrically supervised, deletion of an exception for 13R sprinkler system, location of stand-pipe hose connections and access doors, existing modification of high-rise height from 75 feet to 55 feet, clarification of duct smoke detector installations in accordance with Section 907.12, deleting exception for

supervisory signal at a constantly attended location, requiring a heat-responsive device rated of at least 100°F above operating temperatures of the sprinkler for smoke and heat vents.

10. Section 3-3-12. Adopts Chapter 10 "Means of Egress" in its entirety without amendments.
11. Section 3-3-13. These amendments include clarification of requirements for the Emergency Helicopter Landing Facility for high-rise buildings 75 feet and higher.
12. Section 3-3-14. Adopts Chapter 12 "Dry Cleaning" in its entirety without amendments.
13. Section 3-3-15. Adopts Chapter 13 "Combustible Dust-Producing Operations" in its entirety without amendments.
14. Section 3-3-16. Adopts Chapter 14 "Fire Safety during Construction and Demolition" in its entirety without amendments.
15. Section 3-3-17. Adopts Chapter 15 "Flammable Finishes" in its entirety without amendments.
16. Section 3-3-18. Adopts Chapter 16 "Fruit and Crop Ripening" in its entirety without amendments.
17. Section 3-3-19. Adopts Chapter 17 "Fumigation and Thermal Insecticidal Fogging" in its entirety without amendments.
18. Section 3-3-20. Adopts Chapter 18 "Semiconductor Fabrication Facilities" in its entirety without amendments.
19. Section 3-3-21. Adopts Chapter 19 "Lumber Yards and Woodworking Facilities" in its entirety with amendments. These amendments include the existing policy requirements for the Lumber yards and Woodworking Facilities. The amendments include permitting, processing, and the size limitation requirements.
20. Section 3-3-22. Adopts Chapter 20 "Manufacture of Organic Coatings" in its entirety without amendments.
21. Section 3-3-23. Adopts Chapter 21 "Industrial Ovens" in its entirety without amendments.
22. Section 3-3-24. Adopts Chapter 22 "Motor Fuel-Dispensing Facilities and Repair Garages" in its entirety without amendments.

23. Section 3-3-25. Adopts Chapter 23 "High-Piled Combustible Storage" in its entirety with amendments. The amendment includes the flue space clarification for the high-piled storage facilities.
24. Section 3-3-26. Adopts Chapter 24 "Tents, Canopies, and Other Member Structures" in its entirety without amendments.
25. Section 3-3-27. Adopts Chapter 25 "Tire Rebuilding & Tire Storage" in its entirety without amendments.
26. Section 3-3-28. Adopts Chapter 26 "Welding and Other Hot Works" in its entirety without amendments.
27. Section 3-3-29. Adopts Chapter 27 "Hazardous Materials – General Provisions" in its entirety with amendments. These amendments include the existing requirements for the hazardous material, chemical classification inventory requirements and identification.
28. Section 3-3-30. Adopts Chapter 28 "Aerosols" in its entirety without amendments.
29. Section 3-3-31. Adopts Chapter 29 "Combustible Fibers" in its entirety without amendments.
30. Section 3-3-32. Adopts Chapter 30 "Compressed Gases" in its entirety without amendments.
31. Section 3-3-33. Adopts Chapter 31 "Corrosive Material" in its entirety without amendments.
32. Section 3-3-34. Adopts Chapter 32 "Cryogenic Materials" in its entirety with amendments. These amendments include the existing requirements for signage for cryogenic fluids.
33. Section 3-3-35. Adopts Chapter 33 "Explosives and Fireworks" in its entirety with amendments. These amendments include the existing requirements for the fireworks including the prohibition of fireworks through retail.
34. Section 3-3-36. Adopts Chapter 34 "Flammable and Combustible Liquids" in its entirety with amendments. These amendments include the existing requirements for the labeling of flammable and combustible liquids.
35. Section 3-3-37. Adopts Chapter 35 "Flammable Gases" in its entirety without amendments.
36. Section 3-3-38. Adopts Chapter 36 "Flammable Solids" in its entirety without amendments.

37. Section 3-3-39. Adopts Chapter 37 "High Toxic and Toxic Materials" is adopted in its entirety with amendments. The amendment includes the clarification of requirements for the toxic materials.
38. Section 3-3-40. Adopts Chapter 38 "Liquefied Petroleum Gases" in its entirety without amendments.
39. Section 3-3-41. Adopts Chapter 39 "Organic Peroxides" in its entirety without amendments.
40. Section 3-3-42. Adopts Chapter 40 "Oxidizers" in its entirety without amendments.
41. Section 3-3-43. Adopts Chapter 41 "Pyrophoric Materials" in its entirety without amendments.
42. Section 3-3-44. Adopts Chapter 42 "Pyroxylin Plastics" in its entirety without amendments.
43. Section 3-3-45. Adopts Chapter 43 "Unstable (Reactive) Materials" in its entirety without amendments.
44. Section 3-3-46. Adopts Chapter 44 "Water-Reactive Solids and Liquids" in its entirety without amendments.
45. Section 3-3-47. Adopts Chapter 45 "Marinas" in its entirety with amendments. The new amendments establish addressing requirements, and corrosion resistant materials.
46. Section 3-3-48. Adopts specific Sections in Chapter 46 "Construction Requirements for Existing Buildings" without amendments. Other sections are covered by Title 19.
47. Section 3-3-49. Adopts Chapter 47 "Referenced Standards" in its entirety with Amendments. These amendments include NFPA standards. The local amendments pertain to additional clarification when necessary as well as modifications of technical issues involving system installation techniques and materials to improve system reliability.
48. Section 3-3-50. Adopts Chapter 48 "Motion Pictures and Television Production Studio Sound Stages, Approved Production Facilities, and Production Locations" in its entirety without amendments.
49. Section 3-3-51 Adopts Chapter 49 "Requirements for Wildland-Urban Interface Fire Areas" in its entirety with amendments The amendment includes requirements for vegetation management.

50. Section 3-3-52. Adopts Appendix B "Fire Flow Requirements for Buildings" in its entirety with amendments. The amendment includes administrative clarification for the use of sprinklers.
51. Section 3-3-53. Adopts Appendix BB "Fire Flow Requirements for Buildings" in its entirety without amendments. Appendix BB is specific to buildings regulated by Government Code, Section 17280.
52. Section 3-3-54. Adopts Appendix C "Fire Hydrant Locations and Distribution" in its entirety without amendments.
53. Section 3-3-55. Adopts Appendix CC "Fire Hydrant Locations and Distribution" in its entirety without amendments. Appendix CC is specific to buildings regulated by Government Code, Section 17280.

FINDINGS OF LOCAL CONDITIONS

The amendments contained in the Ordinance adopting the California Fire Code and related regulations described herein are necessary to provide better fire protection due to the following local conditions:

Section 1

I. Climatic Conditions

- A. Orange County is located in a semi-arid Mediterranean type climate. It annually experiences extended periods of high temperatures with little or no precipitation. Hot, dry (Santa Ana) winds, which may reach speeds of 70 M.P.H. or greater, are also common to the area. These climatic conditions cause extreme drying of vegetation and common building materials. Frequent periods of drought and low humidity add to the fire danger. This predisposes the area to large destructive fires (conflagration). In addition to directly damaging or destroying buildings, these fires are also prone to disrupt utility services throughout the County. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles will greatly impact the response time to reach an incident scene. Additionally, there is a significant increase in the amount of wind force at 60 feet above the ground. Use of aerial type fire fighting apparatus above this height would place rescue personnel at increased risk of injury.
- B. The climate alternates between extended periods of drought and brief flooding conditions. Flood conditions may affect the Orange County Fire Authority's ability to respond to a fire or emergency condition. Floods also disrupt utility services to buildings and facilities within the County.
- C. Water demand in this densely populated area far exceeds the quantity supplied by natural precipitation; and although the population continues to grow, the already-taxed water supply does not. California is projected to increase in population by nearly 10 million over the next quarter of a century with 50 percent of that growth centered in

Southern California. Due to storage capacities and consumption, and a limited amount of rainfall future water allocation is not fully dependable. This necessitates the need for additional and on-site fire protection features. It would also leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of available water to floors in a fire.

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

II. Topographical conditions

- A. Natural; slopes of 15 percent or greater generally occur throughout the foothills of Orange County. The elevation change cause by the hills creates the geological foundation on which communities with Orange County is built and will continue to build. With much of the populated flatlands already built upon, future growth will occur in areas with steeper slopes and greater constraints in terrain.
- B. Road circulation features located throughout the County also make amendments reasonably necessary. Located through the County are major roadways, highways and flood control channels that create barriers and slow response times. Hills, slopes, street and storm drain design accompanies with occasional heavy rainfall, causes roadway flooding and landslides and at times may make an emergency access route impassable. There are areas in Orange County that naturally have extended Fire Department emergency response times that exceed the 5 minute goal.
- C. Placement of multiple occupancy buildings, location of arterial roads, and fire department staffing constraints due to recent revenue-limiting state legislation have made it difficult for the fire department to locate additional fire stations and provide manpower sufficient to concentrate fire companies and personnel to control fires in high density apartment or condominium buildings. Fire Department equipment does not allow easy access to areas of buildings greater than 55 feet above the level of Fire Department vehicle access. These conditions create the need for built-in on-site fire protection systems to protect occupants and property until fire fighting apparatus and personnel arrive on the scene

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

III. Geologic Conditions

Orange County is located in a highly active seismic area. There are earthquake faults

that run along both the northeastern and southwestern boundaries of Orange County. The Newport-Inglewood Fault Zone (NIFZ) which runs through Orange County was the source of the destructive 1933 Long Beach earthquake (6.3 magnitude, hypocenter off Newport Beach coast), which took 120 lives, with areas damaged from Laguna Beach to Marina del Rey and inland to Whittier, and poses one of the greatest hazards to lives and property in the nation. Regional planning for reoccurrence is recommended by the State of California, Department of Conservation. There was also an earthquake in December 1989, with the epicenter located near the City of Irvine. The fault on which this quake occurred was unknown prior to this activity. The October 17, 1989, Santa Cruz earthquake resulted in only one major San Francisco fire in the Marina district, but when combined with the 34 other fires and over 500 responses, the department was taxed to its full capabilities. The Marina fire was difficult to contain because mains supplying water to the district burst during the earthquake. If more fires had been ignited by the earthquake, it would have been difficult for the fire department to contain them. Experts predict a major earthquake in our area within the next 50 years. This situation creates the need for both additional fire protection measures and automatic on-site fire protection for building occupants since a multitude of fires may result from breakage of gas and electric lines as a result of an earthquake. As noted by "Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation," page 59, "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe";

- A. Traffic and circulation congestion presently existing in Orange County often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.
- B. Orange County is located in the middle of the seismically active area. The viability of the public water system would be questionable at best after a major seismic event. This would leave tall buildings vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create obstacles similar to those indicated under the high wind section above. With the probability of strong aftershocks there exists a need to provide increased protection for anyone on upper floors.
- C. Soils throughout the County possess corrosive properties that reduce the expected usable life of water services when metallic pipes in contact with soils are utilized.
- D. Portions of the County contain active or former oil production fields. These areas contain a variety of naturally occurring gasses, liquids and vapors. These compounds present toxicity or flammability hazards to building occupants. Evaluation of these hazards and the risks they pose to development is necessary
implement appropriate mitigation.

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

Additional amendments have been made to the Fire Code. On the recommendation of the OC Public Works of the County of Orange, such amendments are hereby found to be either administrative or procedural in nature or concern themselves with subjects not covered in such Codes. The changes made include provisions making each of said Codes compatible with other Codes enforced by the County of Orange.

Section 2

Amendments to the 2010 Edition of the California Fire Code is found reasonably necessary based on the climatic, topographical, and/or geologic conditions cited in Section 1 of this resolution and are listed as follows:

<u>Code Section</u>	<u>Findings in Section 1</u>
304.1.2(7) (E), 305.5, 507.5.1	I, II
318	III-D
604.2.15.1.1, 604.2.15.2.2.1, 903.1.1.1, 905.4, 907.4.1	III-A, III-B
2308.3, 2703.1.1.1	
610	II-C
Chapter 47	II, II-A, III-B, III-C
903.2, 903.2.8,	I-D, II, III-A, III-B
907.6.2.2, 1108.1 thru 1108.1.11, 2703.1.1(1), 4503.7,	II, III-A, III-B
3704.2.2.7, 4503.7	
4504.2.2	III-C
903.4	II-B, III-A, III-B

NOW, THEREFORE, BE IT RESOLVED that a copy of this Resolution, together with the Ordinance adopting the California Fire Code, 2010 Edition as amended, and related regulations described herein be filed with the State Department of Housing and Community Development and the California Building Standards Commission.

The foregoing was passed and adopted by the following vote of the Orange County Board of Supervisors, on January 25, 2011, to wit:

AYES: Supervisors: PATRICIA BATES, JANET NGUYEN, JOHN M. W. MOORLACH
SHAWN NELSON, BILL CAMPBELL
NOES: Supervisor(s):
EXCUSED: Supervisor(s):
ABSTAINED: Supervisor(s):

Bill Campbell

CHAIRMAN

STATE OF CALIFORNIA)
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chairman of the Board and that the above and foregoing Resolution was duly and regularly adopted by the Orange County Board of Supervisors .

IN WITNESS WHEREOF, I have hereto set my hand and seal.

Darlene J. Bloom

DARLENE J. BLOOM
Clerk of the Board
County of Orange, State of California



Resolution No: 11-013
Agenda Date: 01/25/2011
Item No: 48



I certify that the foregoing is a true and correct copy of the Resolution adopted by the Board of Supervisors , Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy