

December 15, 2010

California Building Standards Commission  
Dave Walls  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833-2936

**RE: City of Tustin, Building Standards Code Adoption Resolutions and Ordinances**

Mr. Dave Walls:

The City of Tustin has adopted the 2010 edition of the Building, Residential, Green Building Standards, Plumbing, Mechanical, Electrical and Fire Codes of the State of California.

The City of Tustin 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, Residential, Electrical, and Fire Codes are reasonably necessary due to local conditions in the City of Tustin 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 City of Tustin.

The enclosed City Resolutions 10-105 and 10-106, and Ordinances 1386 and 1387 are for your files.

If additional information is desired please telephone this office at (714) 573-3130.

Sincerely,

  
Y. Henry Huang, P.E., CBO.  
Building Official

Attachment: Resolutions 10-105 and 10-106  
Ordinances 1386 and 1387

RECEIVED  
CALIFORNIA BUILDING  
STANDARDS COMMISSION  
DEC 20 10 3:15 PM

RESOLUTION NO. 10-105

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TUSTIN, CALIFORNIA, SETTING FORTH FINDINGS WITH RESPECT TO LOCAL CONDITIONS WITHIN THE CITY OF TUSTIN WHICH MAKE CERTAIN MODIFICATIONS AND CHANGES TO THE CALIFORNIA BUILDING CODE, CALIFORNIA RESIDENTIAL CODE, THE CALIFORNIA PLUMBING CODE, AND THE CALIFORNIA ELECTRICAL CODE AS AMENDED BY THE STATE OF CALIFORNIA

The City Council of the City of Tustin finds and resolves as follow:

Section 1

WHEREAS, Health and Safety Code Section 17958 provides that the City of Tustin shall adopt Ordinances and regulations imposing the same or modified or changed requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

WHEREAS, the State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Building Code, the California Residential Code, the California Plumbing Code, and the California Electrical Code (hereinafter referred to collectively as "Codes"); and

WHEREAS, Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the Codes, which are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Codes, shall make express findings that such changes or modifications are reasonably necessary because of local climatic, geographic or topographic conditions; and

WHEREAS, the Community Development Department and the Orange County Fire Authority (OCFA) have recommended that changes and modifications be made to the Codes and has advised that certain said changes and modifications to the 2010 Edition of the California Building Code, the 2010 Edition of the California Residential Code, the 2010 Edition of the California Plumbing Code, and the 2010 Edition of the California Electrical Code are reasonably necessary due to local conditions in the City of Tustin. Amendments related to fire and life-safety contained in Sections 403, 403.1, 403.1.1, 403.4.7.2, 403.4.8.1, 412.2, 412.7.5, 1505.1.3, 3402, 3405 and Table 1505.1 of the 2010 Edition of the California Building Code, Sections R403.1.3, R405.1, R902.1, R902.1.3, R902.2, R of the 2010 Edition of the California Residential Code, Section 604.1 and 1201.1 of the 2010 Edition of the California Plumbing Code, and Articles

300.5(L) and 310.2(B) of the 2010 Edition of the California Electrical Code as recommended by the Community Development Department and the OCFA are hereby found to be reasonably necessary due to the following local conditions.

**A. Climatic Conditions**

1. Hot, dry Santa Ana winds are common to all areas within the City of Tustin and Orange County in general. These winds, which can cause small fires which spread quickly, are a contributing factor to the high fire danger in the area, and create the need for an increased level of fire protection. This added protection will supplement normal OCFA response available and provide immediate protection for life and safety of multiple occupancy occupants during fire occurrences.
2. Orange County and the City of Tustin are located in a semi-arid Mediterranean type climate which predisposes all fuels, including wood shingles, to rapid ignition and spread of fire. Therefore, there exists a need for additional fire protection measures.
3. The warm, dry climate is conducive to swimming pools which creates a higher probability of children drowning where pools are unprotected.

**B. Geographic Conditions**

1. Orange County and the City of Tustin are located in Seismic Design Category D or higher. 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 and Governor's Office of Emergency Services. 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 fire 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 the Tustin 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 the document *Planning Scenario on a Major Earthquake on the Newport-Inglewood*

*Fault Zone, 1988, State Department of Conservation* states: "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe";

2. In the event of emergency conditions within the City of Tustin, traffic and circulation congestion often places OCFA response time to fire occurrences at risk. This condition will be exacerbated by any major regional 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.
3. Placement of multiple occupancy buildings, location of arterial roads, and OCFA staffing constraints due to recent revenue-limiting state legislation have made it difficult for the OCFA 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. OCFA equipment does not allow easy access to areas of buildings greater than 55 feet above the level of OCFA 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.

The City of Tustin is located in an area subject to a climatic condition of high winds and low humidity. This combination of events creates an environment, which is conducive to rapidly spreading fires. Control of such fires requires rapid response. Obstacles generated by a strong wind, such as fallen trees, street lights and utility poles, and the requirement to climb 75 feet vertically up flights of stairs will greatly impact the response time to reach an incident scene. Additionally ASCE-7, Section 6, Figure 6-2 Height Adjustment Table identifies 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.

The City of Tustin is located in the middle of the seismically active area identified as Seismic Design Category D or higher. The viability of the public water system would be questionable 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.

4. Untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of

burning wooden roofs become flying brands and are carried by the wind to other locations and thereby spread fire quickly.

5. Building Code Section 3402 and 3405 – Are intended to provide the tools necessary to comply with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, ("Stafford Act"). The Stafford Act authorizes the Federal Emergency Management Agency (FEMA) to fund the repair and restoration of eligible government and non-profit facilities damaged in a Presidential declared disaster. Section 406(e) of the Stafford Act requires that the repair and restoration be "on the basis of the design of such facility as it existed immediately prior to the major disaster and in conformity with current applicable codes, specifications and standards." These provisions are the recommendation of the California Building Official (CALBO) Emergency Preparedness Committee.
  
6. Soils throughout the Orange County possess corrosive properties that reduce the expected usable life of metallic electrical conduits and water services when metallic pipes come in contact with these soils necessitating amendments to the code to protect public health and safety.

Section 2

Amendments to the 2010 Editions of the California Building Standards Code are found reasonably necessary based on the climatic and/or geographic conditions cited in Section 1 of this Resolution and are listed as follows:

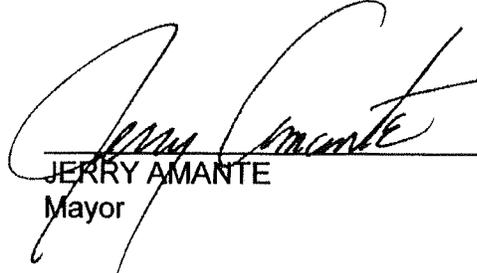
<u>Code Section or Article</u>	<u>Findings in Section 1</u>
CBC 403, 403.4.7.2, 403.4.8.1, 907.2.13, 907.6.3.2	A-1, B-2, B-3
CBC 412.7	B-1, B-2, B-3
CBC 903.2, 903.2.8	A-1, A-2, B-2
CBC 1505, CRC R902.1	A-1, A-2, B-2, B-4
CBC 3402, 3405	B-1, B-5
CRC R403.1.3, R405.1	B-1
CEC 300.5(L), 310.2(B)	Administrative A-1, B-1, B-6
CPC 604.1, 1201.1	B-6

The aforementioned amendments have been incorporated in Ordinance No. 1386.

Section 3

The Community Development Department shall file copies of Resolutions 10-105 and Ordinance 1386 with the California Building Standards Commission as required by Health and Safety Code Section 17958.7.

PASSED and ADOPTED at a regular meeting of the City Council of the City of Tustin, held on the 16<sup>th</sup> day of November, 2010.

  
\_\_\_\_\_  
JERRY AMANTE  
Mayor

  
\_\_\_\_\_  
Pamela Stoker  
City Clerk

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

I, Pamela Stoker, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, do hereby certify that the whole number of the members of the City Council of the City of Tustin is five; that the above and foregoing Resolution No. 10-105 was duly passed and adopted at a regular meeting of the Tustin City Council, held on the 16<sup>th</sup> day of November 2010, by the following vote:

COUNCILMEMBER AYES:	<u>Amante, Nielsen, Davert, Gavello</u>	(4)
COUNCILMEMBER NOES:	<u>Palmer</u>	(1)
COUNCILMEMBER ABSTAINED:	<u>None</u>	(0)
COUNCILMEMBER ABSENT:	<u>None</u>	(0)

  
\_\_\_\_\_  
Pamela Stoker  
City Clerk

ORDINANCE NO. 1386

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TUSTIN, CALIFORNIA AMENDING SPECIFIED CHAPTERS OF ARTICLE 8 OF THE TUSTIN CITY CODE TO ADOPT THE 2010 EDITIONS OF THE CALIFORNIA BUILDING STANDARDS CODE AND RELATED MODEL CODES WITH APPENDICES AND AMENDMENTS THERETO

The City Council of the City of Tustin does ordain as follows:

**SECTION 1. Construction Codes Adopted.**

For the purpose of prescribing regulations for erecting, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment use, height, and area of buildings and structures, the following building and construction codes subject to the modifications set forth in this Ordinance, are hereby adopted:

The California Building Code, 2010 Edition, based on the 2009 International Building Code as published by the International Code Council, including Division II in Chapter 1;

The California Residential Code, 2010 Edition, based on the 2009 International Residential Code as published by the International Code Council;

The California Green Building Standards Code, 2010 Edition;

The California Plumbing Code, 2010 Edition, based on the 2009 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials;

The California Mechanical Code, 2010 Edition, based on the 2009 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials;

The California Electrical Code, 2010 Edition, based on the 2008 National Electrical Code as published by the National Fire Protection Association;

The California Historical Building Code, 2010 Edition;

The California Existing Building Code, based on the 2009 International Existing Building Code, the Uniform Housing Code, 1997 Edition and the Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, as published by the International Code Council.

The provisions of these Construction Codes, as amended by this Ordinance, shall constitute the Building and Construction Regulations of the City of Tustin. Except as

amended herein, where the California Code of Regulations and State Building Standards Code differ from any sections of the Building and Standards Regulations, State regulations shall prevail over the Building and Construction Regulations.

One (1) copy of all the above codes and standards therefore are on file in the office of the Building Official pursuant to Health and Safety Code Section 18942 (d) (1) and are made available for public inspection.

**SECTION 2. Section 8100 of Chapter 1 of Article 8 of the Tustin City Code is deleted in its entirety and replaced as follows:**

**8100 ADOPTION OF THE 2010 CALIFORNIA BUILDING CODE CHAPTER 1 DIVISION II AS THE ADMINISTRATIVE CODE FOR BUILDING AND CONSTRUCTION**

Except as provided in this chapter, Chapter 1, Division II of the California Building Code, 2010 Edition, based on the 2009 International Building Code as published by the International Code Council, shall be and become the Administrative Code for building and construction of the City, providing rules and regulations for the administration and enforcement of the construction codes adopted by the City. The 2010 California Building Code will be on file for public examination in the Community Development Department.

**SECTION 3. Section 8101 of Chapter 1 of Article 8 of the Tustin City Code is amended as follows:** Subsections (a) through (y) are deleted in their entirety and replaced by subsections (a) through (r) as provided below; subsection (z) is hereby renumbered as subsection (s).

**8101 AMENDMENT OF CHAPTER 1, DIVISION II OF THE CALIFORNIA BUILDING CODE, 2010 EDITION**

Chapter 1, Division II of the 2010 California Building Code is hereby amended as follows:

- (a) Section 101.2 Scope, of Chapter 1, Division II of the 2010 California Building Code is hereby amended to add a new second and third paragraph to read:

The provisions of these codes shall apply to and affect all of the properties within the City of Tustin, except work located primarily in a public way; public utility towers and poles; mechanical equipment not specifically regulated in these codes; hydraulic flood control structures; facilities for the production, generation, storage or transmission of water or electrical energy by a local agency. If any conflict between this chapter and any other provisions of the Tustin City Code exists, this chapter shall govern.

All references to the term [Uniform Building Code] in the Tustin City Code and Ordinances shall mean the latest edition of the [California Building Code.]

- (b) Section 101.2 of Chapter 1, Division II of the 2010 California Building Code

is hereby amended by deleting the Exception to Section 101.2.

- (c) Section 103.1 of Chapter 1, Division II of the 2010 California Building Code is hereby amended by adding the following to the end of the section to read:

Where referred to by this code, "building official" shall mean the Building Official of the City of Tustin, and "Department of Building and Safety" or "department" shall mean the Building Division of the Community Development Department of the City of Tustin. Any and all classification, title changes, organizational changes are made with respect to approvals thereto by the City Council.

- (d) Section 104.6 of Chapter 1, Division II of the 2010 California Building Code is hereby amended by adding a second paragraph to read:

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

- (e) Section 105.1 of Chapter 1, Division II of the 2010 California Building Code is amended by adding Sections 105.1.3, 105.1.3.1, 105.1.4, and 105.1.5 to read:

**105.1.3 Grading Permits.** The Building Official shall issue permits for grading and for construction, demolition, addition, alteration, and installation of improvements. Improvements subject to permit requirements include but are not limited to: streets, parking lots, curb and gutter, driveways, sidewalks, disabled access ramps and signage, street and parking lot striping and signage, street and parking lot lighting, storm drains, junction structures, catch basins, sewer mains and laterals, water mains and services, landscaping irrigation, and miscellaneous on-site improvements. In addition, all improvements shall comply with the Grading Ordinance and the Water Quality Ordinance of the Tustin City Code.

**105.1.3.1 Drainage across property lines.** Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices.

**105.1.4 Relocation of Buildings.**

No building or structure shall be moved or relocated unless and until the

necessary permits to relocate the building or structure have been issued by the Building Official. The Building Official shall determine the applicable year and Codes that apply.

**105.1.5 Demolition of Building or Structure, including in ground swimming pool.**

No building or structure, including in ground swimming pool, shall be demolished unless and until the necessary permits to demolish the building or structure have been issued by the Building Official.

Prior to issuing any permits, the Building Official will ensure life and property is reasonably protected. A refundable cash deposit or surety bond shall be collected, to reimburse the expenses to the City should the Building Official be required to demolish the building or structure or any portion remaining thereof, and dispose of the debris in a public dump and/or to repair or clean public property damaged or not cleaned by the permittee or to mitigate water quality impacts per Tustin City Code.

The cash deposit or surety bond shall be Five Thousand Dollars (\$5,000.00) plus Two Dollars (\$2.00) per square foot for each square foot over one thousand (1,000) square feet.

The Building Official shall, in issuing any demolition permit, impose therein such terms and conditions, including a cash bond deposit or surety bond, as may be necessary to ensure compliance with the requirements of all federal, State laws and City ordinances. The terms and conditions upon which each permit is granted shall be specified in writing in the permit, or appended in writing thereto.

**Default in Performance.**

- a. If the Building Official finds that a default has occurred in the performance of any term or condition of the demolition permit, or the owner and/or permittee has soiled or damaged public property, written notice thereof shall be given to the owner and/or permittee.
- b. Such notice shall specify the work to be done, the estimated cost thereof, and the period of time deemed by the Building Official to be reasonably necessary for the completion of such work.
- c. After receipt of such notice, the owner and/or permittee thereof specified shall cause the required work to be performed. Should the owner and/or permittee refuse or fail therein, the Building Official shall proceed to cause the building to be demolished but no liability shall be incurred therein, other than for City expenses deducted from the cash deposit.
- d. Upon completion of the demolition work, the cash deposit shall be refunded or surety bond shall be released, less that portion required to reimburse the City for demolition, repairs, or clean-up expenses due to the default of the permittee.

(f) Section 105.2 Work exempt from permit of Chapter 1, Division II of the 2010 California Building Code is hereby amended as follows:

1. Section 105.2, "Building" Item 1 is hereby amended to read:

1. One story detached accessory structures used as tool and storage sheds, patio and pool supply sheds, free standing vehicle covers, BBQ or stand-alone fireplaces not exceeding 6 feet above grade, playhouses and similar uses, provided the floor area does not exceed 120 square feet (1.1m<sup>2</sup>) and conforming with the Zoning Code. A correctly dimensioned site plan depicting the property lines, location, elevation, colors and finishing surface shall be submitted to the City Planning Division for review and approval. Electrical, plumbing, mechanical, and grading permits where applicable are not exempt. A no-inspection building permit shall be issued upon approval and permit issuance fee only shall apply.

2. Section 105.2, "Building" Item 2 is hereby amended to read:

2. Fences, block walls, wood, steel, or iron fences 3 feet and over in height but less than 6 feet above finished grade supported either by natural grade, or by retaining walls 2 feet and under in height above finished grade for Group R-3 occupancies and those structures covered by the California Residential Code. A correctly dimensioned site plan depicting the property lines, location, elevation, color and finishing surface shall be submitted to the City Planning Division for review and approval. A no-inspection building permit will be issued upon approval and permit issuance fee only shall apply. Permit shall not be required if the aforementioned fence is less than 3 feet in height.

3. Section 105.2, "Plumbing" Item 2 is hereby amended to read:

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

(g) Section 105.3.2 of Chapter 1, Division II of the 2010 California Building Code is hereby amended to read:

**105.3.2 Time limitation of application.** Applications for a permit for any proposed work for which no permit is issued shall be deemed to have expired 360 days after the date of filing unless otherwise limited by the Code. The Building Official is authorized to grant one extension of time for action by the applicant for a period not exceeding 180 days. The

extension shall be requested in writing and justifiable cause demonstrated. Plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. When required by State law or City ordinance, permit applications shall be amended to comply with pertinent State laws and City ordinances adopted subsequent to the date of application.

Time limitation for permit application and subsequent extension as the result of code enforcement cases shall be thirty (30) days from the date the notice of violation is issued or otherwise determined by the Building Official. Building Official may not grant any extension.

- (h) Section 105.5 Expiration of Chapter 1, Division II of the 2010 California Building Code is hereby amended to add a sentence at the end of the paragraph and add a second paragraph to read:

Permits shall not be extended more than twice.

Time limitation for permit as the result of code enforcement cases shall be thirty (30) days or otherwise determined by the Building Official. Building Official may not grant any extension.

- (i) Section 105.7 of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

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

- (j) Chapter 1, Division II of the 2010 California Building Code is hereby amended by adding Sections 105.8, 105.9, 105.10, 105.11, 105.12 and 105.13 to read:

**105.8 Residential remodeling.** The following regulations and definitions shall apply to all remodeling construction on dwellings and properties:

1. **Completion of construction.** All building permits for Group R-3 occupancies and those structures covered by the California Residential Code, remodeling shall expire in accordance with the provisions of the building code if work is not commenced within one hundred eighty (180) days from the date of such permit, or if the work authorized by permit is suspended or abandoned, for one hundred eighty (180) days at any time after the work is commenced. Notwithstanding the above, and subject to the provisions for extensions provided in subsection 2 below, all residential remodeling shall be completed by the owner, owner's agent, or the permittee and approved by the City within the following time frame:

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

2. **Maintenance of property during remodeling.** During remodeling, all property shall be maintained in a reasonable clean and well-kept manner in accordance with the Tustin City Code.

3. **Definitions.**

a. **Remodeling.** Residential remodeling construction is defined as construction of work which constitutes construction, enlargement, alteration, erection, repair, demolition or improvement, of an existing residential structure or other improvement located on residential property.

b. **Reasonable progress.** Reasonable progress shall mean a demonstration that all means reasonably available to the permittee to complete the work within the prescribed time have been exhausted.

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

**105.10 Subcontractors.** At the time of permit issuance, the applicant shall complete a form provided by the Building Division, which lists all subcontractors, and shows verification of workers' compensation insurance, State contractor license and license category, City business license and Federal tax identification number. No person shall contract or sub-contract construction work without a valid contractor's license pursuant to applicable provisions of the California Business and Professions Code.

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

**105.11 Clean-Up Deposit.** The Building Official shall, prior to issuing a permit for a swimming pool or spa, require clean-up deposit as follows:

1. Prior to issuance of a building permit for a swimming pool or spa, the applicant shall provide an agreement and cash deposit for the purpose of insuring that: a) sand, cement, dirt and any other debris is removed from streets, gutters, curbs, parkways, sidewalks and other public property; b) public property is left in a clean and undamaged condition; and, c) adequate barricades have been installed and maintained. Said deposit shall be determined by the Building Official for the construction of a swimming pool, spa or other construction related thereto requiring the use of heavy equipment.
2. Said agreement and deposit may be reduced to not less than one thousand dollars (\$1,000.00) for the issuance of a spa, jacuzzi, and other small pool permit not intended for swimming when the scope of the project will have a minimal impact on public improvements; by reason of not requiring the use of heavy construction equipment over curbs, sidewalks or public streets.
3. Said deposit shall terminate and be returnable to the applicant at the time of completion and provided that debris and other materials have been properly removed, and the public property has been left clean and undamaged.

All damage to public curbs, gutters, sidewalks, driveway and light standards during the construction of pool, shall be repaired prior to preplaster inspection. A written signed release from the Public Works Department shall be filed with the Building Official to ensure damages have been repaired.

4. If the public property has not been left in a clean and undamaged condition and/or adequate barricades required by the Public Works Department have not been installed and maintained, the City shall cause the necessary work to be done and shall deduct the cost thereof from the deposit.

### **105.12 Public Encroachment.**

Construction materials, debris, trash containers (dumpsters), and other non-vehicle materials shall not be deposited on public property without the written approval of the City Engineer and only under such conditions as he/she may impose. Any barricading required by the City Engineer shall be provided by the contractor.

- (k) Section 109.2 of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**109.2 Schedule of plan check and permit fees.** On buildings, structures, electrical, gas, mechanical, plumbing systems and grading, or alterations thereof that require a permit, a fee for each plan check and permit shall be paid as required, in accordance with the schedule as established by a the City Council resolution in effect at the time of plan check application and issuance of the permit.

**109.2.1 Plan check fees.** When construction documents are required, they should be submitted for plan check by the Building Official. A plan check fee shall be paid at the time of submitting the documents for plan check. The plan check fees specified in this section are separate fees from the permit fees specified in Section 109.2 and are in addition to the permit fees.

When submittal documents are incomplete or changed or amended so as to require additional plan review, or when the project is phased as defined in Section 107.3.3, or when the project involves deferred submittal items as defined in Section 107.3.4.2, additional plan check fees shall be charged as set forth in the fee schedule established by the City Council resolution in effect at the time of the additional or defined plan check submittal.

**109.2.2 Engineering or inspection investigation fees.** Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, the Building Official may require an investigation by city staff be made before a permit may be issued for such work.

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued for city's cost of investigation by city staff. The payment of such investigation fee shall not exempt an applicant from compliance with all other provisions of the Tustin City Code nor from the penalty prescribed by law.

A real estate investigation fee may also be charged for any investigation of a building, structure, or property, when approved by the Building Official

and requested by an owner or authorized agent of such owner. Such fee shall be equal to or less than the cost of providing the inspection and/or investigation.

- (l) Section 109.3 of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**109.3 Building permit valuations.** The determination of value or valuation under any of the provisions of these Codes shall be made as set forth in the fee schedule established by City Council resolution in effect at the time of plan check submittal. The value to be used in computing the building permit and building plan check fees shall be the total value of all construction work, including materials and labor, for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and other permanent equipment, and grading as determined by the Building Official based on the current edition of the Marshall Valuation Service published by Marshall & Swift/Boeckh, LLC., RS Means Cost Data published by Reed Construction Data, or other nationally or regionally recognized standards.

- (m) Section 109.6 of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

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

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

The Building Official may authorize refunding of not more than 80 percent of the plan check fee paid when an application for a permit for which a plan check fee has been paid is withdrawn or canceled before any examination time has been expended.

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

- (n) Section 110.3 Required inspections of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**110.3 Required inspections.** The Building Official, upon notification, shall make the inspections set forth in this Section. Structural tests, special inspections and structural observation shall also comply with the provisions

of Chapter 17 of the California Building Code.

**110.3.1 Grading, excavation and filling inspection.** Inspection shall be conducted during earthwork, excavations, grading and filling operations in accordance with Section 1704.7, Chapter 18, and the Tustin City Code.

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

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

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

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

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

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

**110.3.7 Fire-resistant penetrations.** Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

**110.3.8 Energy efficiency inspections.** Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation *R*- and *U*- values, fenestration *U*-value, duct system *R*-value, and HVAC and water-heating equipment efficiency.

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

**110.3.10 Special inspections and special inspectors.** For special inspections, see Section 1704. Special inspection shall be performed by individuals with demonstrated qualifications approved by the Building Official and listed by the City of Tustin.

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

- (o) Section 113.1 General of Chapter 1 Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**113.1 General.** The Building Board of Appeals for the City of Tustin shall consist of five members, comprised of members of the Planning Commission. Said members shall hold their respective membership on said Building Board of Appeals by reason of, and concurrently with their terms of service as Planning Commissioners and shall cease to be such members upon their ceasing to be such Commissioners. The Building Official shall be the Secretary of the Board.

The Building Board of Appeals may adopt reasonable rules and regulations for conducting its investigations and shall render its decisions and findings on contested matters, in writing to the Building Official, with a duplicate copy thereof to any appellant or contestant affected by any such decision or findings, and may recommend to the City Council such new legislation, if any, as is consistent therewith.

All Building Board of Appeals decisions and findings shall be transmitted in writing to the appellant. The Building Official shall maintain a full set of records for each case. The order of the Building Board of Appeals shall be immediately final.

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

Applicants for a Building Board of Appeals hearing shall be notified at least one (1) week prior to any hearing or proceedings concerning their case. The applicant shall be given the opportunity to present his/her case at any proceedings involving their applications.

- (p) Section 114.1 of Chapter 1 Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**114.1 Unlawful acts.** It shall be unlawful for any person, firm or corporation to grade, erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of the Tustin City Code.

- (q) Section 114.4 of Chapter 1 Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**114.4 Violation Penalties.** No person, firm, or corporation shall violate any provision, or fail to comply with any of the provisions of this Code, or of any Code adopted herein by reference. Any person violating any of the provisions or failing to comply with any of the mandatory requirements of this Code, or any Code adopted by reference herein, unless otherwise specified in this Code, shall be guilty of an infraction or misdemeanor as set forth in the Penalty Provisions of the Tustin City Code.

Each such person, firm, or corporation violating any provision or failing to comply with any of the requirements shall be guilty of a separate offense, and each day during any portion of which any violation of any provision of this Code, or any Code adopted by reference herein, is committed, continued or permitted by such person, shall constitute a separate offense, and shall be punishable accordingly. Provided further that each such person violating a provision which limits the time an act may be permitted or continued, each such period or portion thereof of which any violation of such provision is committed, continued or permitted by such person, shall constitute a separate offense, and shall be punishable accordingly.

In addition to the penalties hereinabove provided, any condition caused or permitted to exist in violation of any of the provisions of this Code, or of any Code adopted by reference herein, may be deemed a public nuisance and may be summarily abated as such by the City, and each day such condition continues shall be regarded as a new and separate nuisance and offense.

- (r) Section 116 of Chapter 1, Division II of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

#### **SECTION 116 UNSAFE STRUCTURES AND EQUIPMENT**

**116.1 Unsafe sites, buildings, structures, equipment and nuisances.** All sites, buildings, structures or existing equipment which are determined by the Building Official to be unsafe, unsanitary or deficient, as this division or in any other effective ordinance, including but not limited to the International Property Maintenance Code, the Uniform Housing Code, and the Uniform Code for the Abatement of Dangerous Buildings as adopted by the City of Tustin constitute an unsafe condition. All such unsafe conditions, sites, buildings, structures, or equipment are hereby declared

to be public nuisances and may be abated by repair, rehabilitation, improvement, removal, demolition, in whole or part, in accordance with the procedures specified in the Tustin City Code or by any other legal means.

**SECTION 4, Section 8102 of Chapter 1 of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

**8102 ADOPTION OF THE 2010 CALIFORNIA BUILDING CODE**

Except as provided in this chapter, those certain building codes known and designated as the California Building Code, 2010 Edition, based on the 2009 International Building Code as published by the International Code Council, excluding Chapter 1 Division II, shall become the building code of the City for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and/or structures in the City. The California Building Code and its appendix will be on file for public examination in the office of the Building Official.

**SECTION 5. Section 8103 of Chapter 1 of Article 8 of the Tustin City Code is hereby amended as follows:** Subsections (a) through (o) are hereby deleted in their entirety and replaced with subsections (a) through (u) as provided below; subsection (p) is hereby renumbered as subsection (v).

**8103 AMENDMENTS TO THE 2010 CALIFORNIA BUILDING CODE**

The 2010 California Building Code is hereby amended as follows:

- (a) Section 403, the first paragraph of Section 403.1, and definition no. 2 under HIGH-RISE BUILDING of Section 403.1.1 of the 2010 California Building Code are amended to read as follows:

**SECTION 403**

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

**403.1 Applicability.** New high-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and new Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall comply with Sections 403.2 through 403.6.

**403.1.1 Definitions.**

**HIGH-RISE BUILDING:** In other than Group I-2 occupancies "high-rise

buildings as used in this code:

2. **High-rise structure** shall mean 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 (see Section 403.1.2), except buildings used as hospitals as defined by the Health and Safety Code Section 1250.

- (b) Section 403.4.7.2 and 403.4.8.1 of the 2010 California Building Code are modified by moving Item 2. "Ventilation and automatic fire detection equipment for smoke proof enclosures" from section 403.4.7.2 "Standby Power Loads" and placing it in 403.4.8.1 "Emergency Power Loads". The revised sections are to read as follows:

**403.4.7.2 Standby power loads.** The following are classified as standby power loads:

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

**403.4.8.1 Emergency power loads.** The following are classified as emergency power loads:

1. Exit signs and means of egress illumination required by Chapter 10;
2. Elevator car lighting;
3. Emergency voice/alarm communications systems;
4. Automatic fire detection systems;
5. Fire alarm systems;
6. Electrically powered fire pumps; and
7. Ventilation and automatic fire detection equipment for smoke proof enclosures.

- (c) Sections 412.1 and 412.2 of the 2010 California Building Code are hereby deleted in their entirety and replaced as follows:

**412.1 General.** Aircraft-related occupancies, except for Emergency Helicopter Landing Facility, shall comply with Sections 412.1 through 412.7 and the California Fire Code.

**412.2 Definitions.** The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

**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 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.

**FIXED BASE OPERATOR (FBO).** A commercial business granted the right by the airport sponsor to operate on an airport and provide aeronautical services, such as fueling, hangaring, tie-down and parking, aircraft rental, aircraft maintenance and flight instruction.

**HELIPORT.** An area of land or water or a structural surface that is used, or intended for the use, for the landing and taking off of helicopters, and any appurtenant areas that are used, or intended for use, for heliport buildings or other heliport facilities.

**HELISTOP.** The same as "heliport," except that no fueling, defueling, maintenance, repairs or storage of helicopters is permitted.

**RESIDENTIAL AIRCRAFT HANGAR.** An accessory building less than 2,000 square feet (186 m<sup>2</sup>) and 20 feet (6096 mm) in building height constructed on a one- or two-family property where aircraft are stored. Such use will be considered as residential accessory use incidental to the dwelling.

**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.

**TRANSIENT AIRCRAFT.** Aircraft based at another location and at the transient location for not more than 90 days.

- (d) Section 412.7.5 is hereby added to the 2010 California Building Code to read as follows:

**SECTION 412.7.5.  
Emergency Helicopter Landing Facility.**

**Section 412.7.5.1 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 only use by fire, police, and emergency medical helicopters.

**Section 412.7.5.2 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.

**Section 412.7.5.3 Approach-Departure Path.** The emergency helicopter landing facility shall have two approach-departure paths separated in plan 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.

**Section 412.7.5.4 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.

**Section 412.7.5.5 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.

**Section 412.7.5.6 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.

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

**Section 412.7.5.8 Special Markings.** The emergency helicopter landing facility shall be marked as indicated in Figure 1108.8.1.

**Section 412.7.5.9 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

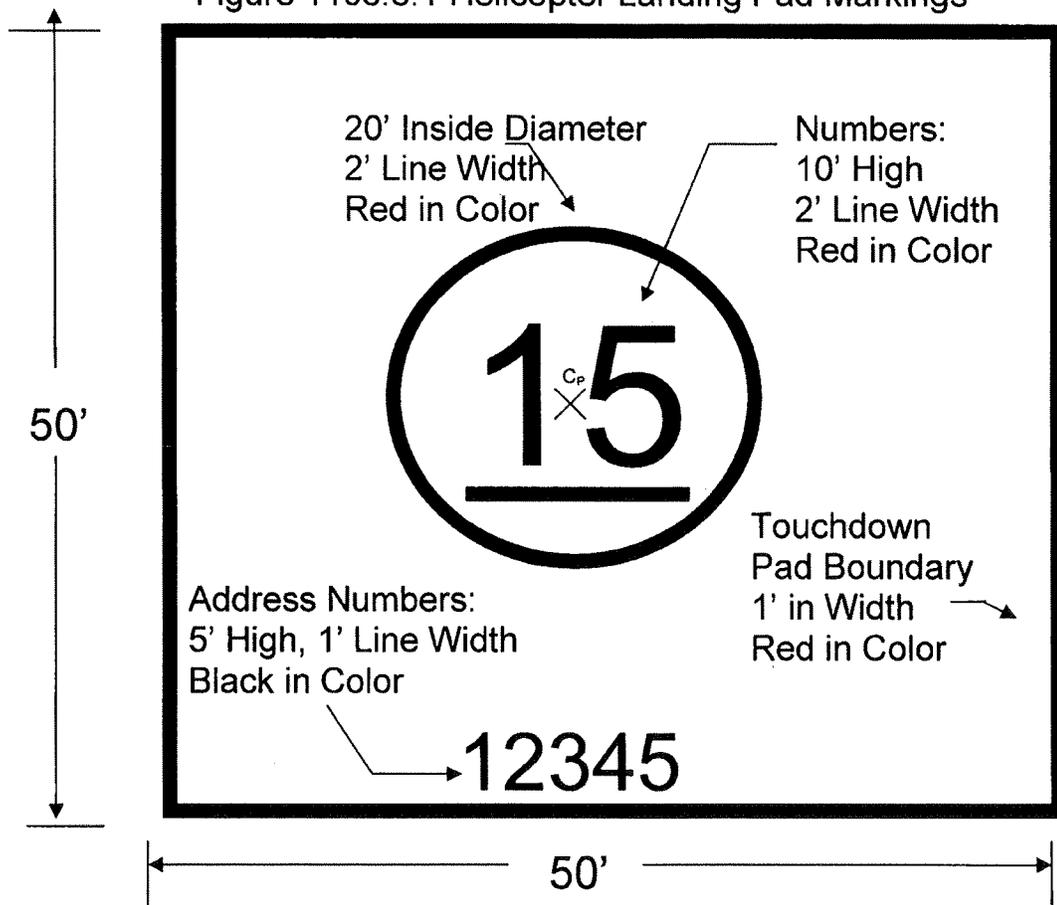
leading to the to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with CFC 1009.4.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

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

**Section 412.7.5.12 EHLF.** Fueling, maintenance, repairs, or storage of helicopters shall not be permitted.

Figure 1108.8.1 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).
- (e) Section 903.3.1.1.1 Exempt locations of the 2010 California Building Code is hereby amended by revising Item 4 as follows:
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..
- (f) Section 903.4 Sprinkler system supervision and alarms of the 2010 California Building Code is hereby revised by modifying Exception 1, deleting Exceptions 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.
- (g) Section 904.3.5 of the 2010 California Building Code 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.
- (h) Section 905.4 Location of Class I standpipe hose connections of the 2010 California Building Code is hereby amended by adding Items 7 and 8 to read as follows:
7. The centerline of the 2.5 inch (64 mm) outlet shall be no less than 18 inches (457 mm) above and no more than 24 inches (610 mm) 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 at the grade level or a 2.5 inch (64 mm) hose outlet(s). 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 and need not meet other requirements of this code.

- (i) Section 907.2.13 of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**[F] 907.2.13 High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access.** High-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet above the lowest level fire department vehicle access shall be provided with an automatic smoke detection system 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 907.5.2.2.

**Exceptions:**

1. Airport traffic control towers in accordance with Section 907.2.22 and Section 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
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.

- (j) Section 907.3.1 of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**[F] 907.3.1 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:**

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.

- (k) Section 907.5.2.2 Emergency voice/alarm communication systems of the 2010 California Building Code is hereby amended by adding items 5 and 6 to read:

5. Dwelling Units in apartment houses.
6. Hotel guest rooms or suites.

- (l) Section 907.6.3.2 of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**907.6.3.2 High-rise buildings.** In high-rise buildings having occupied floors located more than 55 feet above the lowest level of fire department vehicle access and Group I-2 occupancies having floors located more than 75 feet 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 waterflow devices.
3. Manual fire alarm boxes
4. Other approved types of automatic detection devices or suppression systems.

- (m) Section 910.3.2.2 of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

**[F] 910.3.2.2 Sprinklered buildings.** Where installed in buildings provided 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.

- (n) Table 1505.1 of the 2010 California Building Code is hereby amended to read:

**TABLE 1505.1<sup>a</sup>**  
**MINIMUM ROOF COVERING CLASSIFICATIONS**  
**TYPES OF CONSTRUCTION**

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

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>.

a. Unless otherwise required in accordance with Chapter 7A.

(o) Section 1505.1.3 of the 2010 California Building Code is hereby deleted in its entirety and replaced as follows:

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

(p) Section 1505.5 Nonclassified roofing of the 2010 California Building Code is hereby deleted in its entirety without replacement.

(q) Section 1505.7 Special purpose roofs of the 2010 California Building Code is hereby deleted in its entirety without replacement.

(r) Section 3109.4.4 Private Swimming Pools (statewide) of the 2010 California Building Code is hereby amended by adding Sections 3109.4.4.9 and 3109.4.4.10 to read:

**3109.4.4.9 Waste Water Disposal.**

No direct or indirect connection shall be made between any storm drain, sewer, drainage system, seepage pit, underground leaching pit, or subsoil drainage line, and any line connected to a swimming pool, unless approved by the Building Official.

Waste water from any filter, scum filter, scum gutter, overflow pool emptying line or similar apparatus or appurtenance shall discharge into an approved type receptor by air gap and subsequently into public sewer. The flood level rim of such receptor shall be at least six (6) inches above the flood level of the adjacent ground. Each such receptor, when permitted to be connected to any part of a drainage system shall be provided with an approved three (3) inch trap.

Plans and specifications for any deviation from the above manner of installation shall first be approved by the Building Official before any portion of any such system is installed.

#### **3109.4.4.10 Construction Requirements.**

(a) All pool construction shall be in conformance with engineered design for expansive soils, unless a soils report by a registered engineer approved by the Building Official indicates otherwise.

(b) The pool shall be constructed not less than seven (7) feet from the top of a cut, fill or natural earth slope, less than five (5) feet from toe of a cut, fill or natural earth slope not less than five (5) feet from the property line (measured from water line).

(c) A continuous inspection by a special inspector shall be required on all pools constructed of reinforced gunite, or reinforced cast in place concrete. Said special inspector shall insure all electrical bonding is properly installed; ensure all required reinforcing steel and diving board or slide anchor bolts are properly in place, ensure concrete is cast to the thickness required for expansive soil, ensure the concrete is properly placed; and take test samples during the placing of concrete and such samples shall be tested by an approved testing laboratory to attain a strength exceeding two thousand (2,000) psi, or as required by the design engineer at twenty-eight (28) days.

Should such test show the concrete to fail or to be of questionable quality or strength, the special inspector may require core tests to be taken upon approval of the Building Official. Special inspectors shall submit to the Building Official a written report showing the dates of inspection, and the result of the laboratory tests. The report shall indicate the reinforcing steel is per the approved drawings, expansive soil details were followed, the work complies with the approved drawings, this Code and footings and anchor bolts of diving boards and other pool accessories are adequate.

(s) Section 3400 of the 2010 California Building Code is hereby amended by adopting Sections 3402 and 3405, and by adding Section 3405.6 to read:

**3405.6 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.

**3405.6.1 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  $R$ ,  $\Omega_o$ , and  $C_d$  used 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 3405.6.1.

**TABLE 3405.6.1  
PERFORMANCE CRITERIA FOR CBC LEVEL SEISMIC FORCES**

<b>OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL</b>
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 need not be less than the acceptance criteria specified for Occupancy Category IV performance levels.

**3405.6.2 Compliance with reduced CBC level seismic forces.** Where seismic evaluation and design is permitted to meet reduced California Building Code seismic force levels, the procedures used shall be in accordance with one of the following:

1. The California Building Code using 75 percent of the prescribed forces. Values of  $R$ ,  $\Omega_o$ , and  $C_d$  used for analysis shall be as specified in Section 3405.6.1 Item 1.

2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A of the *International Existing Building Code* as specified in Items 2.1 through 2.5 below shall be deemed to comply with this section.

2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted

to be based on the procedures specified in Appendix Chapter A1.

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

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

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

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

3. Compliance with ASCE 31 based on the applicable performance level as shown in Table 3405.6.2. It shall be permitted to use the BSE-1 earthquake hazard level as defined in ASCE 41 and subject to the limitations in item 4 below.

4. Compliance with ASCE 41 using the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 3405.6.2. The design spectral response acceleration parameters  $S_{xs}$  and  $S_{x1}$  specified in ASCE 41 shall not be taken less than 75 percent of the respective design spectral response acceleration parameters  $S_{DS}$  and  $S_{D1}$  defined by the *California Building Code* and its reference standards.

**TABLE 3405.6.2  
PERFORMANCE CRITERIA FOR REDUCED CBC  
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)
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- 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 need not be less than the acceptance criteria specified for Occupancy Category IV performance levels.
- b. For Occupancy Category III, the ASCE screening phase checklists shall be based on the life safety performance level.

**3405.6.3 Referenced Standards**

Standard Reference Number	Title	Referenced In Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3405.6.1, TABLE 3405.6.1 3405.2.4.2, TABLE 3405.6.2
ASCE 41-06 Including Supplement No. 1	Seismic Rehabilitation of Existing Buildings	3405.6.1, TABLE 3405.6.1 3405.6.2, TABLE 3405.6.2

- (t) Chapter 35 Referenced Standards of the 2010 California Building Code is hereby amended by adding the second paragraph to read:

For revisions to NFPA 13, 13R, 13D, 14, 24, and 72, refer to Fire Code Amendments Chapter 47 Referenced Standards.

**SECTION 6, Section 8105 of Chapter 1 of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

8105 ADOPTION OF STATE HISTORICAL BUILDING CODE

The California Historical Building Code, 2010 Edition, as published by the International Code Council, shall be and become the Historical Code of the City of Tustin, providing alternative building regulations for the rehabilitation, preservation, restoration or relocation of buildings or structures designated as historical buildings by Federal, State, County, or City laws and/or regulations. The California Historical Building Code is on file for public examination in the office of the Building Official.

**SECTION 7, Chapter 2 of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

CHAPTER 2  
MECHANICAL CODE

8200 ADOPTION OF 2010 EDITION OF THE CALIFORNIA MECHANICAL CODE

Except as provided in this chapter, the California Mechanical Code, 2010 Edition, based on the 2009 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials, shall be and become the Mechanical Code of the City of Tustin, regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat producing appliances. The 2010 California Mechanical Code is on file for public examination in the office of the Building Official.

8201 AMENDMENTS TO THE CALIFORNIA MECHANICAL CODE

The 2010 Edition of the California Mechanical Code is hereby adopted with no amendments.

**SECTION 8, Chapter 3 of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

CHAPTER 3  
PLUMBING CODE

8300 ADOPTION OF 2010 EDITION OF THE CALIFORNIA PLUMBING CODE

Except as provided in this chapter, the California Plumbing Code, 2010 Edition, based on the 2009 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials, shall be and become the Plumbing Code of the City of Tustin, regulating erection, installation, alteration, repair, relocation, replacement, maintenance or use of plumbing systems within the City of Tustin. The 2010 California Plumbing Code will be on file for public examination in the office of the Building Official.

8301 AMENDMENTS TO THE CALIFORNIA PLUMBING CODE

a. Section 604 of the 2010 California Plumbing Code is hereby amended by adding Section 604.1.2 to read:

604.1.2 All metallic pipe, fittings and parts of fixtures buried in the ground shall be protected by at least 40 mils plastic sleeve or equivalent wrapping. Ferrous piping shall not be permitted under floor slab within a building.

b. Section 1209.5 of the 2010 California Plumbing Code is hereby amended by adding Section 1209.5.1.4 to read:

1209.5.1.4 Approved Polyethylene or other pipe material approved for underground installation shall be used in exterior buried piping systems.

**SECTION 9, Chapter 4 of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

CHAPTER 4  
ELECTRICAL CODE

8400 ADOPTION OF 2010 EDITION OF THE CALIFORNIA ELECTRICAL CODE

Except as provided in this chapter, the California Electrical Code, 2010 Edition, based on the 2008 National Electrical Code as published by the National Fire Protection Association, shall be and become the Electrical Code of the City of Tustin, regulating all installation, arrangement, alteration, repair, use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City of Tustin. The 2010 California Electrical Code is on file for public examination in the office of the Building Official.

8401 AMENDMENTS TO THE CALIFORNIA ELECTRICAL CODE

The 2010 Edition of the California Electrical Code is hereby amended as follows:

(a) Article 300.5 of the 2010 California Electrical Code is hereby amended, by the addition of a new subsection (L) to read:

300.5(L) Earth within the City of Tustin is corrosive, unless the permittee proves to the satisfaction of the Building Official the earth in the specific project area is not corrosive for the installation of the above noted electrical items in contact with or buried in the earth. Unless otherwise authorized by the Building Official, all such items embedded in the ground shall be protected by at least double, spiral wrapping, half overlapping with 10 mil plastic tape (total 40 mils cover), or approved equal.

(b) Article 310.2(B) of the 2010 California Electrical Code is hereby amended by adding a second paragraph to read:

Copper wire shall be used for wiring size No. 4/0 and smaller in all installation. Consideration for use of aluminum wiring can be made by the Building Official for feeder lines only on an individual basis where adequate safety measures can be ensured.

**SECTION 10, Chapter 9A of Article 8 of the Tustin City Code is hereby deleted in its entirety and replaced as follows:**

CHAPTER 9A  
CALIFORNIA EXISTING BUILDING CODE

**A8900 ADOPTION OF 2010 EDITION OF THE CALIFORNIA EXISTING BUILDING CODE**

Except as provided in this chapter, the 2010 California Existing Building Code Appendix A-1, based on the 2009 International Existing Building Code as published by the International Code Council, shall be and become the Existing Building Code of the City of Tustin for regulating existing unreinforced masonry bearing wall buildings in the City. The 2010 California Existing Building Code will be on file for public examination in the office of the Building Official.

**A8901 AMENDMENTS TO THE CALIFORNIA EXISTING BUILDING CODE**

The 2010 Edition of the California Existing Building Code is hereby adopted with no amendments.

**SECTION 11, Chapter 1A of Article 8 of the Tustin City Code is hereby added to read as follows:**

**A8100 ADOPTION OF THE 2010 CALIFORNIA RESIDENTIAL CODE**

Except as provided in this chapter, the California Residential Code, 2010 Edition, based on the 2009 International Residential Code as published by the International Code Council, shall be and become the Residential Building Code of the City of Tustin, providing for the enforcement of the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every detached one-and two-family dwelling, townhouse not more than three stories above grade plane in height with a separate means of egress and structures accessory thereto. The 2010 California Residential Code will be on file for public examination in the Community Development Department.

**A8101 Amendment to the 2010 Edition of the California Residential Code**

(a) Section R301.2 of the 2010 California Residential Code is hereby amended by revising Table R301.2(1) to read:

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

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP °	ICE BARRIER UNDERLAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>l</sup>
	Speed <sup>d</sup> (mph)	Topographic effects <sup>k</sup>		Weathering <sup>a</sup>	Frost line Depth <sup>b</sup>	Termite <sup>c</sup>					
Zero	85	No	D <sub>2</sub> or E	Negligible	0"	Very Heavy	43	No	NFIP Maps 164, 168, 169, 277, 278, 279, 281, 282, and 283 in Community	0	60



- (e) Section R405.1 Concrete or masonry foundations of the 2010 California Residential Code is hereby amended by deleting the exception.
- (f) Section R902.1 of the 2010 California Residential Code is hereby deleted in its entirety and replaced as follows:

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

**Exceptions:**

- 1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
- 2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

- (g) Section R902.1.3 of the 2010 California Residential Code is hereby deleted in its entirety and replaced as follows:

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

- (h) Section R902.2, first paragraph of the 2010 California Residential Code is hereby amended to read:

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

- (i) Chapter 44 Referenced Standards of the 2010 California Residential Code is hereby amended by adding the second paragraph to read:

For revisions to NFPA 13, 13R, 13D, 14, 24, and 72, refer to Fire Code Amendments Chapter 47 Referenced Standards.

**SECTION 12, Chapter 1B of Article 8 of the Tustin City Code is hereby added to read as follows:**

B8100 ADOPTION OF THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE

Except as provided in this chapter, the California Green Building Standards Code, 2010 Edition, as published by the International Code Council, shall be and become the Green Building Standards Code of the City of Tustin, providing for the administration and enforcement of the planning, design, operation, construction, use and occupancy of every newly constructed buildings or structures. The 2010 California Green Building Standards Code will be on file for public examination in the Community Development Department.

B8101 Amendment to the 2010 Edition of the California Green Building Standards Code

- (a) Section 202 Definitions of the 2010 California Green Building Standards Code is hereby amended to add the following definition:

**Sustainability.** Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

- (b) Section 4.304.1 of the 2010 California Green Building Standards Code is hereby deleted in its entirety and replaced as follows:

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

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

**SECTION 13, Chapter 5 of Article 8 of the Tustin City Code is hereby deleted in its entirety without replacement.**

**SECTION 14, Section 8106 of Chapter 1 of Article 8 of the Tustin City Code is hereby added to read as follows:**

8106 ADOPTION OF PROPERTY MAINTENANCE CODE

The International Property Maintenance Code, 2009 Edition, including Appendix A as published by the International Code Council, shall be and become the Property Maintenance Code of the City of Tustin, providing regulations for the maintenance of buildings and properties. The International Property Maintenance Code is on file for public examination in the office of the Building

Official.

**SECTION 15, Section 8107 of Chapter 1 of Article 8 of the Tustin City Code is hereby added to read as follows:**

**8107 ADOPTION OF UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS**

The Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, as published by the International Code Council, shall be and become the Code of the City of Tustin, providing regulations for requirements for the repair, vacate, or demolition of buildings or structures which from any cause endanger the life, limb, health, moral, property, safety, or welfare of the general public or their occupants. The Uniform Code for the Abatement of Dangerous Buildings is on file for public examination in the office of the Building Official.

PASSED AND ADOPTED, at a regular meeting of the City Council for the City of Tustin on this 7<sup>th</sup> day of December, 2010.

  
MAYOR

ATTEST:

  
PAMELA STOKER  
CITY CLERK

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

CERTIFICATION FOR ORDINANCE NO. 1386

PAMELA STOKER, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, does hereby certify that the whole number of the members of the City Council of the City of Tustin is five (5); that the above and foregoing Ordinance No. 1386 was duly and regularly introduced and adopted at a regular meeting of the City Council held on the 7<sup>th</sup> day of December, 2010 by the following vote:

COUNCILMEMBER AYES:	<u>Amante, Nielsen, Gavello, Gomez, Murray</u>	(5)
COUNCILMEMBER NOES:	<u>None</u>	(0)
COUNCILMEMBER ABSTAINED:	<u>None</u>	(0)
COUNCILMEMBER ABSENT:	<u>None</u>	(0)

  
\_\_\_\_\_  
PAMELA STOKER  
CITY CLERK

RESOLUTION NO. 10-106

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TUSTIN CALIFORNIA, SETTING FORTH FINDINGS FOR REQUIRED AMENDMENTS TO THE 2010 CALIFORNIA FIRE CODE RELATIVE TO LOCAL CLIMATIC, TOPOGRAPHIC AND GEOLOGIC CONDITIONS

The City Council of the City of Tustin finds and resolves as follow:

Section 1

WHEREAS, Health and Safety Code Section 17958 provides that the City of Tustin ("City") shall adopt ordinances and regulations imposing the same or modified or changed requirements as are contained in the regulations adopted by the State pursuant to Health and Safety Code Section 17922; and

WHEREAS, the State of California is mandated by Health and Safety Code Section 17922 to impose the same requirements as are contained in the most recent edition of the California Fire Code; and

WHEREAS, Health and Safety Code Section 17958.5(a) permits the City to make modifications or changes to the Code, which are reasonably necessary because of local climatic, geologic, or topographic conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that the City Council, before making any modifications or changes to the Codes, shall make express findings that such changes or modifications are reasonably necessary because of local climatic, geologic, or topographic conditions; and

WHEREAS, the Community Development Department and the Orange County Fire Authority (OCFA) have recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the California Codes are reasonably necessary due to local conditions in the City of Tustin 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 Codes or are reasonably necessary to safeguard life and property within the City of Tustin.

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, 903.3.1.1.1, 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 Community Development Department and the OCFA are hereby found to be reasonably necessary due to the following local conditions:

## **I. Climatic Conditions**

- A. Orange County and the City of Tustin are 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 OCFA 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 could 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 accompanied 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 the OCFA emergency response times that exceed the 5 minute goal. Tustin is part of this larger system and could be negatively impacted during times of emergency.
- C. Placement of multiple occupancy buildings, location of arterial roads, and the OCFA staffing constraints due to recent revenue-limiting state legislation have made it difficult for the OCFA 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. OCFA equipment does not allow easy access to areas of buildings greater than 55 feet above the level of the OCFA 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 OCFA response time to fire occurrences potentially 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 and the City of Tustin are 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 the Tustin 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. The

document entitled *Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation* stated: “unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe”;

- A. In the event of emergency conditions within the City of Tustin, traffic and circulation congestion may place the OCFA response time to fire occurrences are potentially at risk. This condition will be exacerbated by any major regional 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. The City of Tustin 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.

Several proposed amendments are administrative or procedural in nature and mostly ensure consistency with previously adopted ordinances on the recommendation of the Community Development Department and are found to be consistent with the proposed amendments to the Building Codes.

Section 2

Amendments to the 2010 Edition of the California Fire Code are 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

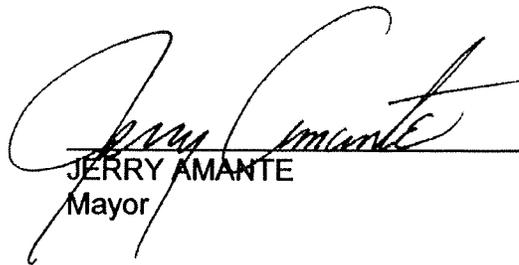
604.2.15.1.1, 604.2.15.2.2.1, 903.1.1.1, 905.4, 907.4.1, 2308.3, 2703.1.1.1	III-A, III-B
610	II-C
Chapter 47	II, II-A, III-B, III-C
903.2, 903.2.8	I-D, II, III-A, III-B
907.6.2.2, 1108.1 thru 1108.1.11, 2703.1.1(1), 4503.7, 3704.2.2.7, 4503.7	II, III-A, III-B
4504.2.2	III-C
903.4	II-B, III-A, III-B

The aforementioned amendments have been incorporated in detail in Ordinance 1387.

Section 3

The Community Development Department shall file copies of Resolutions 10-106 and Ordinance 1387 with the California Building Standards Commission as required by Health and Safety Code Section 17958.7.

PASSED and ADOPTED at a regular meeting of the City Council of the City of Tustin, held on the 16<sup>th</sup> day of November 2010.

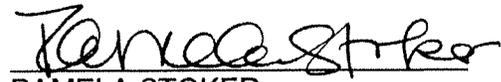
  
 JERRY AMANTE  
 Mayor

  
 Pamela Stoker  
 City Clerk

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

I, Pamela Stoker, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, do hereby certify that the whole number of the members of the City Council of the City of Tustin is five; that the above and foregoing Resolution No. 10-106 was duly passed and adopted at a regular meeting of the Tustin City Council, held on the 16<sup>th</sup> day of November 2010, by the following vote:

COUNCILMEMBER AYES:	<u>Amante, Nielsen, Davert, Gavello</u>	(4)
COUNCILMEMBER NOES:	<u>Palmer</u>	(1)
COUNCILMEMBER ABSTAINED:	<u>None</u>	(0)
COUNCILMEMBER ABSENT:	<u>None</u>	(0)

  
PAMELA STOKER  
City Clerk

ORDINANCE NO. 1387

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TUSTIN, CALIFORNIA, AMENDING SPECIFIED SECTIONS OF CHAPTER 1 OF ARTICLE 5 OF THE TUSTIN CITY CODE TO ADOPT THE 2010 CALIFORNIA FIRE CODE AS AMENDED THERETO.

The City Council of the City of Tustin does ordain as follows:

**SECTION 1. Section 5130 of Chapter 1 of Article 5 of the Tustin City Code is deleted in its entirety and replaced as follows:**

5130 ADOPTED

An ordinance of the City of Tustin adopting the California Fire Code, 2010 Edition, based on the 2009 International Fire Code, regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises in the City of Tustin; providing for the issuance of permits and collection of fees therefor; repealing Ordinance No. 1345 of the City of Tustin and all other ordinances and parts of the ordinances in conflict therewith.

For the purpose of prescribing regulations and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided, the following fire codes subject to the modifications set forth in this Chapter, are hereby adopted: the California Fire Code, 2010 Edition, based on the 2009 International Fire Code as published by the International Code Council as amended by this chapter shall constitute the Fire Code (Fire Code) of the City of Tustin. Where the California Code of Regulations and State Building Standards Code of Regulations differ from any sections of the Fire Code, State regulations shall prevail over the Fire Code.

One (1) copy of all the above codes and standards therefore are on file in the office of the fire code official pursuant to Health and Safety Code Section 18942 (d) (1) and are made available for public inspection.

Notwithstanding the provisions of the above-referenced construction codes, all fees for services provided pursuant to the Fire Code shall not take effect until a resolution for such fees is adopted by the Orange County Fire Authority Board of Directors.

**SECTION 2. Section 5131 of Chapter 1 of Article 5 of the Tustin City Code is deleted in its entirety and replaced as follows:**

5131 AMENDMENTS TO THE 2010 CALIFORNIA FIRE CODE.

5131.01 Chapter 1, Scope and Administration, of the 2010 California Fire Code is adopted in its entirety with the following amendments:

- (a) Section 105.6.29 of the 2010 California Fire Code is deleted in its entirety and replaced 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 m<sup>3</sup>) 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.

- (b) Section 105.6.35 of the 2010 California Fire Code is hereby deleted without replacement.

- (c) Section 109.3 of the 2010 California Fire Code is amended to read 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.

- (d) Section 109.3 of the 2010 California Fire Code is hereby amended by adding Section 109.3.2 to read:

109.3.2 Infraction. Except as provided in Section 109.3.3, 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.

- (e) Section 109.3 of the 2010 California Fire Code is hereby amended by adding Section 109.3.3 to read:

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

5131.02 Chapter 2, Definitions, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 202 of the 2010 California Fire Code is hereby amended by adding "Flow-line", "Hazardous Fire Area" and replacing "High-Rise Building" to read:

**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

5131.03 Chapter 3, General Precautions Against Fire, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 304.1.2 (b) (7) of the 2010 California Fire Code is hereby amended by adding Section "(E)" to read:

(E) OCFA Vegetation Management Guideline.

- (b) Section 305 of the 2010 California Fire Code is hereby amended by adding Section 305.5 to read:

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.

- (c) Section 318 is hereby added to read 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.

- (d) Section 319 is hereby added to read 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.

(e) Section 320 is hereby added to read 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.

(f) Section 321 is hereby added to read 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.

- (g) Section 322 is hereby added to read 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 and maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exception:

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

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.

- (h) Section 323 is hereby added to read 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.

(i) Section 324 is hereby added to read 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.

(j) Section 325 is hereby added to read 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.

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.

5131.04 Chapter 4, Emergency Planning and Preparedness, of the 2010 California Fire Code is hereby adopted and amended by deleting Sections 404, 405, 406, and 408.

5131.05 Chapter 5, Fire Service Features, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 503.1.1 of the 2010 California Fire Code is amended by adding Exception 4 to read:

Exception:

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.

- (b) Section 503.2.1 of the 2010 California Fire Code is hereby amended by adding the following to the end of the section to read:

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.

- (c) Section 503.2.1 of the 2010 California Fire Code is hereby amended by adding Section 503.2.1.1 to read:

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).

- (d) Section 503.4 of the 2010 California Fire Code is hereby amended by adding the following to the end of the section to read:

Speed Bumps and speed humps shall be approved prior to installation.

- (e) Section 503.6 of the 2010 California Fire Code is hereby amended by adding the following to the end of the section to read:

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.

- (f) Section 505.1 of the 2010 California Fire Code is hereby deleted in its entirety and replaced 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.

- (g) Section 507.5.1 of the 2010 California Fire Code is deleted in its entirety and replaced 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 the distance allowed for 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).

- (h) Section 510.1 of the 2010 California Fire Code is hereby amended to read as follows:

510.1 Emergency responder radio coverage in buildings. All new buildings shall have radio coverage for emergency responders in accordance with the City's In-Building Public Safety Radio System Coverage ordinance (Ordinance 1337).

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

- (i) Section 510.2 of the 2010 California Fire Code is hereby deleted without replacement.

5131.06 Chapter 6, Building Service and Systems, of the 2010 California Fire Code is adopted in its entirety with the following amendments:

- (a) Section 604.2.15.1.1 of the 2010 California Fire Code is hereby deleted and replaced 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.

- (b) Section 604.2.15.2.1 of the 2010 California Fire Code is hereby amended by adding item 6 to read:

6. Ventilation and automatic fire detection equipment for smoke proof enclosures.

- (c) Section 606.8 of the 2010 California Fire Code is deleted and replaced 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.

- (d) Section 606.10.1.2 of the 2010 California Fire Code is hereby amended by adding the following to the end of the section to read:

The manual valves shall be located in an approved location immediately outside of the machinery room and in a secure metal box or equivalent and marked as Emergency Controls.

- (e) Section 608.1 of the 2010 California Fire Code is hereby amended by adding the following to the end of the section to read:

Indoor charging of electric carts/cars with more than 50 gallons (189 L) shall comply with Section 608.10.

- (f) Section 608 of the 2010 California Fire Code is hereby amended by adding Section 608.10 to read:

**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:

1. Spill control and neutralization shall be provided and comply with Section 608.5.
2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7
4. Smoke detection shall be provided and comply with Section 907.2

- (g) Section 610 is hereby added to read as follows:

#### **SECTION 610 PHOTOVOLTAIC SYSTEMS**

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.

5131.07 Chapter 7, Fire-Resistance-Rated Construction, of the 2010 California Fire Code is adopted in its entirety without amendments.

5131.08 Chapter 8, Interior Finish, Decorative Materials and Furnishings, of the 2010 California Fire Code - only the Sections and Subsections listed below are adopted herein:

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

5131.09 Chapter 9, Fire Protection Systems, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 903.2 of the 2010 California Fire Code is deleted and replaced 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 m<sup>2</sup>) 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 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202; or
- b. When an addition exceeds 2,000 square feet (186 m<sup>2</sup>) and the resulting building area exceeds 5,000 square feet (465 m<sup>2</sup>) as defined in Section 202.

Exception: Group R-3 occupancies

- (b) Section 903.3.1.1.1 of the 2010 California Fire Code is hereby amended by revising Exception 4 to read:

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.

(c) Section 903.4 of the 2010 California Fire Code is hereby amended by modifying Exception 1, deleting Exceptions 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.

(d) Section 904.3.5 of the 2010 California Fire Code is deleted and replaced 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.

(e) Section 905.4 of the 2010 California Fire Code is hereby amended by adding items 7 and 8 to read:

7. The centerline of the 2.5 inch (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 at the grade level or a 2.5 inch (64 mm) hose outlets. 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 and need not meet other requirements of this code.

- (f) Section 907.2.13 of the 2010 California Fire Code is deleted and replaced 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.
- (g) Section 907.4.1 of the 2010 California Fire Code is deleted and replaced 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.

- (h) Section 907.6.2.2 of the 2010 California Fire Code is deleted and replaced 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.

- (i) Section 907.7.3.2 of the 2010 California Fire Code is deleted and replaced as follows:

907.7.3.2 High-rise buildings. In 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

- (j) Section 910.3.2.2 of the 2010 California Fire Code is deleted and replaced 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.

5131.10 Chapter 10, Means of Egress, of the 2010 California Fire Code is adopted in its entirety without amendments.

5131.11 Chapter 11, Aviation Facilities, of the 2010 California Fire Code is adopted in its entirety with the following amendments:

- (a) Section 1102.1 of the 2010 California Fire Code 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.

- (b) Section 1108 is hereby added to read as follows:

**SECTION 1108**  
**Emergency Helicopter Landing Facility (EHLF)**

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.

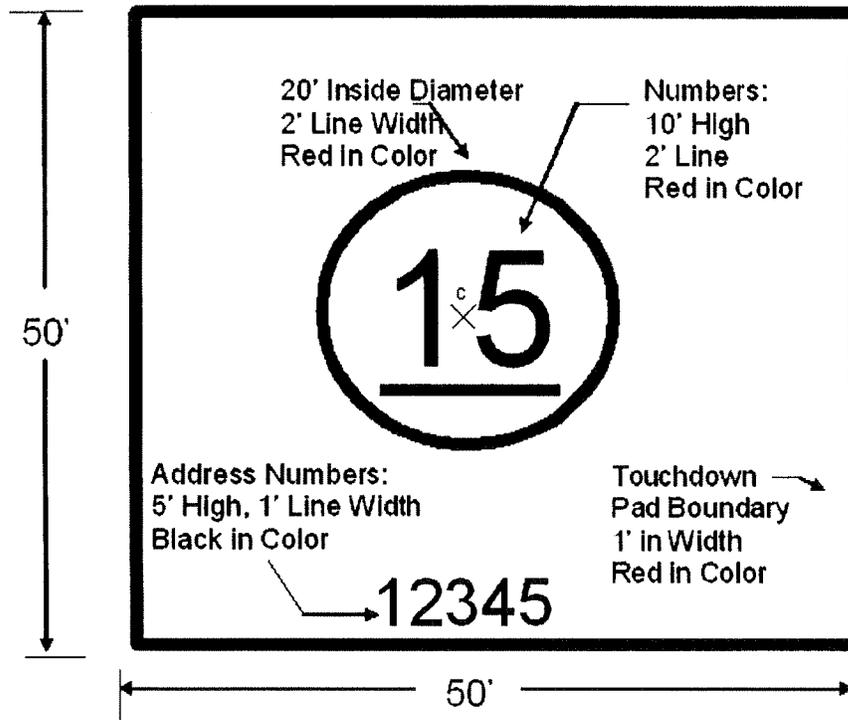
Handrails shall be provided, but shall not extend above the platform surface.

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.

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).

5131.12 Chapter 12, Dry Cleaning, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.13 Chapter 13 Combustible Dust-Producing Operations of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.14 Chapter 14, Fire Safety During Construction and Demolition, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.15 Chapter 15, Flammable Finishes, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.16 Chapter 16, Fruit and Crop Ripening, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.17 (Reserved)

5131.18 Chapter 18, Semiconductor Fabrication Facilities, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.19 Chapter 19, Lumber Yards and Woodworking Facilities, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 1901 of the 2010 California Fire Code is hereby amended by adding the following to the end of Section 1901.2 to read:

For Miscellaneous Combustible Storage Permit, see Section 105.6.29.

- (b) Section 1908.1 of the 2010 California Fire Code is deleted and replaced 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.

- (c) Section 1908.2 of the 2010 California Fire Code is deleted and replaced 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.

- (d) Section 1908.3 of the 2010 California Fire Code is deleted and replaced 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.

- (e) Section 1908 of the 2010 California Fire Code is hereby amended by adding the following to the end of Section 1908.7 to read:

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

- (f) Section 1908.9 of the 2010 California Fire Code is deleted and replaced as follows:

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.

5131.20 Chapter 20, Manufacture of Organic Coatings, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.21 Chapter 21, Industrial Ovens, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.22 Chapter 22, Motor Fuel-Dispensing Facilities and Repair Garages, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.23 Chapter 23, High-Piled Combustible Storage, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 2308 of the 2010 California Fire Code is hereby amended by adding the following statement to the end of Section 2308.3 to read:

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.

- (b) Table 2308.3 of the 2010 California Fire Code is deleted and replaced as follows:

**TABLE 2308.3: REQUIRED FLUE SPACES FOR RACK STORAGE**

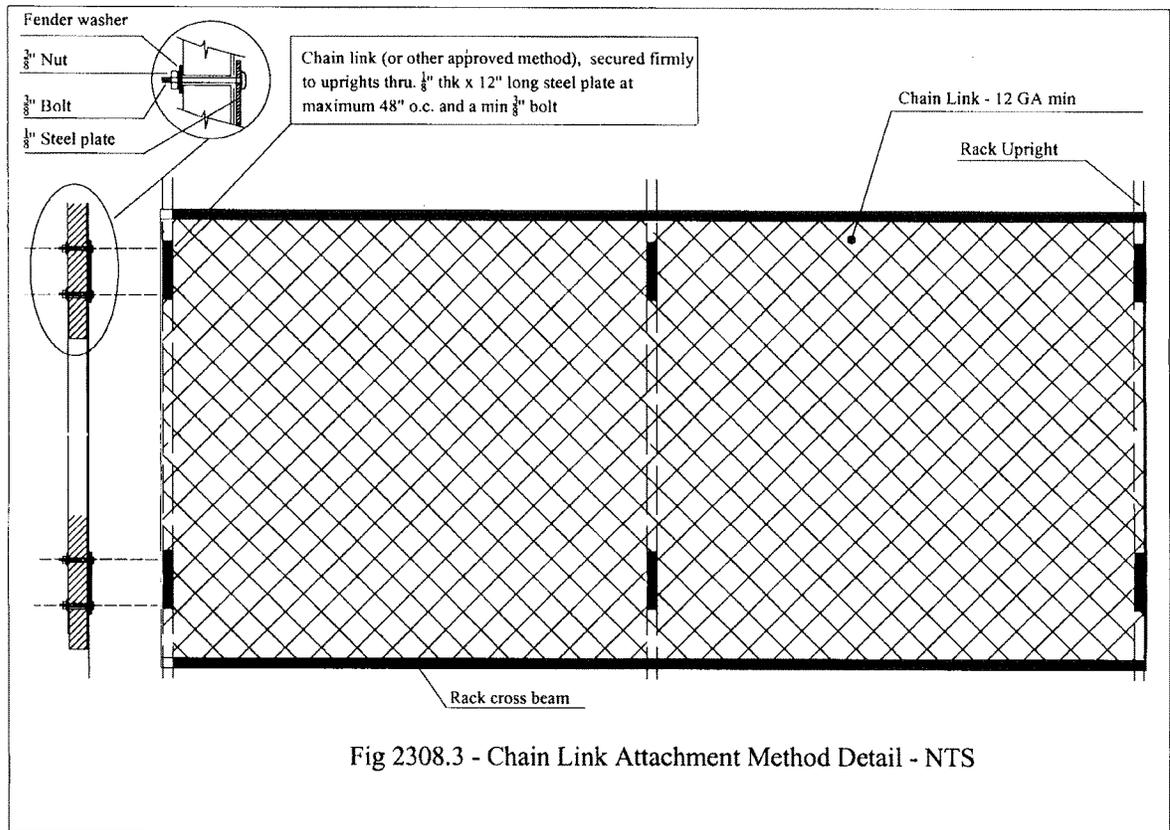
RACK CONFIGURATION	FIRE SPRINKLER PROTECTION Storage Height		SPRINKLER AT THE CEILING WITH OR WITHOUT MINIMUM IN-RACK SPRINKLERS			IN-RACK SPRINKLERS AT EVERY TIER	NON-SPRINKLERED
			≤ 25 feet		> 25 feet	Any Height	Any Height
			Option 1	Option 2			
Single-row Rack	Transverse Flue Space	Size <sup>b</sup>	3 inch	NA	3 inch	NR	NR
		Vertically Aligned	NR	NA	Yes	NA	
	Longitudinal Flue Space		NR	NA	NR	NR	
Double-row Rack	Transverse Flue Space	Size <sup>b</sup>	6 inch <sup>a, c</sup>	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 <sup>b</sup>	6 inch <sup>c</sup>	NA	6 inch	NR	
		Vertically Aligned	NR	NA	Yes	NA	
	Longitudinal Flue Space		NR	NA	NR	NR	

NR = "not required." NA means "not applicable."

<sup>a</sup> Three-inch transverse flue spaces shall be provided at least every 10 feet where ESFR sprinkler protection is provided.

<sup>b</sup> Random variations are allowed, provided that the configuration does not obstruct water penetration.

<sup>c</sup> Transverse flue space shall be maintained by mechanical means as approved.



5131.24 Chapter 24, Tents, Canopies, and Other Membrane Structures, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.25 Chapter 25, Tire Rebuilding & Tire Storage, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.26 Chapter 26, Welding and Other Hot Work, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.27 Chapter 27, Hazardous Materials – General Provisions, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 2701.5.2 of the 2010 California Fire Code is deleted and replaced 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.

(b) Table 2703.1.1(1) of the 2010 California Fire Code is hereby amended by deleting Footnote K without replacement.

(c) Section 2703.1.1 of the 2010 California Fire Code is hereby amended by adding Section 2703.1.1.1 to read:

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.

(d) Section 2703.5 of the 2010 California Fire Code is deleted and replaced 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.

5131.28 Chapter 28, Aerosols, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.29 Chapter 29, Combustible Fibers, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.30 Chapter 30, Compressed Gases, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.31 Chapter 31, Corrosive Materials, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.32 Chapter 32, Cryogenic Fluids, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendment:

- (a) Section 3203.4.1 of the 2010 California Fire Code is hereby amended to read:

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.

5131.33 Chapter 33, Explosives and Fireworks, of the 2010 California Fire Code is adopted in its entirety with the following amendments:

- (a) Section 3301 of the 2010 California Fire Code is hereby amended by adding Section 3301.2 to read:

3301.2 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.

- (b) Section 3301 of the 2010 California Fire Code is hereby amended by adding Section 3301.3 to read:

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.

- (c) Section 3308.1 of the 2010 California Fire Code is deleted and replaced 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.

- (d) Section 3308 of the 2010 California Fire Code is hereby amended by adding Section 3308.2 to read:

3308.2 Firing. All fireworks displays shall be electrically fired.

5131.34 Chapter 34, Flammable and Combustible Liquids, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendment.

- (a) Section 3404.2.3.2 of the 2010 California Fire Code deleted and replaced 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.

5131.35 Chapter 35, Flammable Gases and Flammable Cryogenic Fluids, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.36 Chapter 36, Flammable Solids, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.37 Chapter 37, Highly Toxic and Toxic Materials, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendment.

- (a) Exception No. 1 of Section 3704.2.2.7, of the 2010 California Fire Code is deleted and replaced 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.

5131.38 Chapter 38, Liquefied Petroleum Gases, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.39 Chapter 39, Organic Peroxides, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.40 Chapter 40, Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.41 Chapter 41, Pyrophoric Materials, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.42 Chapter 42, Pyroxylin (Cellulose Nitrate) Plastics, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.43 Chapter 43, Unstable (Reactive) Materials, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.44 Chapter 44, Water-Reactive Solids and Liquids, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.45 Chapter 45, Marinas, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 4503.7 of the 2010 California Fire Code is amended by adding the following to the end of the section to read:

A monument sign shall be installed at each gate designating slip and mooring spaces in contrasting colors.

- (b) Section 4504.2 of the 2010 California Fire Code is hereby amended by adding section 4504.2.2 to read:

4504.2.2 Standpipes. All standpipes exposed to the outside elements shall be painted for corrosion protection.

Exception: Stainless Steel (316 Grade) Standpipes

5131.46 Chapter 46, Construction Requirements for Existing Buildings, of the 2010 California Fire Code – only the following Sections and Subsections listed below are adopted:

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

5131.47 Chapter 47, Referenced Standards, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) NFPA 13, 2010, Edition, Installation of Sprinkler Systems is hereby amended to read:

Section 6.8.3 of the 2010 NFPA 13 is deleted and replaced 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 of the 2010 NFPA 13 is deleted and replaced 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 of the 2010 NFPA 13 is hereby amended by adding Section 8.17.1.1.1 to read:

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 of the 2010 NFPA 13 is deleted and replaced 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 of the 2010 NFPA 13 is hereby amended by adding Section 11.1.1.2 to read:

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 of the 2010 NFPA 13 is hereby amended by adding Section 11.2.3.1.1.1 to read:

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) of the 2010 NFPA 13 is deleted and replaced as follows:

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.

- (b) 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 of the 2010 NFPA 13R is deleted and replaced as follows:

6.16.1 A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies 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 of the 2010 NFPA 13R is deleted and replaced 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 of the 2010 NFPA 13R is hereby amended by adding Section 6.6.9 to read:

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.

- (c) 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 of the 2010 NFPA 13D is hereby amended by adding Section 4.1.5 and Subsections 4.1.5.1 through 4.1.5.4 to read:

#### 4.1.5 Stock of Spare Sprinklers

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.

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

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).

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 of the 2010 NFPA 13D is deleted and replaced 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 of the 2010 NFPA 13D is deleted and replaced as follows:

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

Section 7.6 of the 2010 NFPA 13D is deleted 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 of the 2010 NFPA 13D is hereby amended by adding Section 8.6.4.2 to read:

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

- (d) NFPA 14, 2007 Edition, Installation of Standpipe and Hose Systems is hereby amended as follows:

Section 6.4.5.4.1 of the 2007 NFPA 14 is deleted 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 of the 2007 NFPA 14 is deleted 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.

- (e) NFPA 24, 2010 Edition, Installation of Private Fire Service Mains and Their Appurtenances is hereby amended as follows:

Section 5.9.1.3 of the 2010 NFPA 24 is deleted and replaced 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 of the 2010 NFPA 24 is hereby amended by adding Sections 5.9.1.3.1 and 5.9.1.3.2 to read:

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.

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 of the 2010 NFPA 24 is deleted and replaced as follows:

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

Sections 6.2.11 (5) and 6.2.11 (7) of the 2010 NFPA 24 are hereby deleted without replacement:

Section 6.2.11 (6) of the 2010 NFPA 24 is deleted and replaced as follows:

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

Section 6.3 of the 2010 NFPA 24 is hereby amended by adding Section 6.3.3 to read:

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

Section 10.1.6 of the 2010 NFPA 24 is hereby amended by adding Section 10.1.6.3 to read:

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 of the 2010 NFPA 24 is deleted and replaced 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 of the 2010 NFPA 24 is hereby amended by adding Section 10.3.5.3 to read:

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

Section 10.6.3.1 of the 2010 NFPA 24 is deleted and replaced 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 of the 2010 NFPA 24 is deleted and replaced 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.

(f) NFPA 72, 2010 Edition National Fire Alarm Code is hereby amended as follows:

Section 14.2.1.2.3 of the 2010 NFPA 72 is deleted and replaced 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' designated representative and fire code official shall be informed of the impairment in writing within 24 hours.

Section 23.8.2.2 of the 2010 NFPA 72 is deleted and replaced 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 of the 2010 NFPA 72 is hereby deleted without replacement:

Section 26.2.3.1 of the 2010 NFPA 72 is deleted and replaced 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.

5131.48 Chapter 48, Motion Picture and Television Production Studio Sound Stages, Approved Production Facilities, and Production Locations, of the 2010 California Fire Code is hereby adopted in its entirety without amendments.

5131.49 Chapter 49, Requirements for Wildland-Urban Interface Fire Areas, of the 2010 California Fire Code is hereby adopted in its entirety with the following amendments:

- (a) Section 4906.3 of the 2010 California Fire Code is hereby amended by adding Section (5) to read:

(5) OCFA Vegetation Management Guideline.

- (b) Sections 4908 and 4909 are hereby added to read 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.

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.

5131. AB Appendix B of the 2010 California Fire Code is hereby adopted in its entirety with the following amendment:

- (a) Section B105 of the 2010 California Fire Code is hereby amended by adding Section B105.1 to read:

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 (344.5m<sup>2</sup>) 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 (344.5m<sup>2</sup>) 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.

5131. ABB Appendix BB of the 2010 California Fire Code is adopted in its entirety without amendments.

5131. AC Appendix C of the 2010 California Fire Code is adopted in its entirety without amendments.

5131. ACC Appendix CC of the 2010 California Fire Code is adopted in its entirety without amendments.

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

PASSED AND ADOPTED, at a regular meeting of the City Council for the City of Tustin on this 7<sup>th</sup> day of December, 2010.

  
MAYOR

ATTEST:

  
PAMELA STOKER  
CITY CLERK

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

CERTIFICATION FOR ORDINANCE NO. 1387

PAMELA STOKER, City Clerk and ex-officio Clerk of the City Council of the City of Tustin, California, does hereby certify that the whole number of the members of the City Council of the City of Tustin is five (5); that the above and foregoing Ordinance No. 1387 was duly and regularly introduced and adopted at a regular meeting of the City Council held on the 7<sup>th</sup> day of December, 2010 by the following vote:

COUNCILMEMBER AYES:	<u>Amante, Nielsen, Gavello, Gomez, Murray</u>	(5)
COUNCILMEMBER NOES:	<u>None</u>	(0)
COUNCILMEMBER ABSTAINED:	<u>None</u>	(0)
COUNCILMEMBER ABSENT:	<u>None</u>	(0)

  
PAMELA STOKER  
CITY CLERK