Agenda Item 9D

Approvals:
City Manager
Dept. Head
Attorney JAG
Finance

AGENDA REPORT

SAN CLEMENTE CITY COUNCIL MEETING
Meeting Date: October 1, 2013

Department: Community Development / Building Division
Prepared By: Mike Jorgensen, Building Official

Subject: ***UPDATE ON PROCESS TO ADOPT THE NEW 2013 CALIFORNIA BUILDING CODES AND THE PROPOSED ELIMINATION OF CERTAIN LOCAL AMENDMENTS TO SIMPLIFY CODE REQUIREMENTS***

Fiscal Impact: None.

Summary: The purpose of the staff presentation is to provide an update and overview of the code adoption process and to request Council direction related to the possibility of exempting certain types of projects from requiring building permits and consideration of changes to current code requirements to reduce and simplify permit requirements.

Staff recommends that the Council authorize staff to proceed with implementing the proposed changes to current building code regulations in order to simplify and streamline permit requirements.

Background: January 1, 2014 is the statewide effective date established by the California Building Standards Commission for the new 2013 California Building Standards Code.

Every three years the State of California Building Standards Commission (BSC) reviews the newest model codes published by various independent code-developing bodies. These model codes are sent to the BSC and the other state agencies that propose or adopt building standards. These model codes with state amendments from the various state agencies become the California Building Standards Code.

The California Building Standards Code, Title 24, are the established minimum regulations for the design and construction of buildings and structures in California. State law mandates that local government enforce these regulations.

Local ordinances amending building standards approved/adopted by the Commission are subject to requirements of California law. Local ordinances generally must be more restrictive than the minimum building standards approved/adopted by the Commission. These local amendments must be filed, as appropriate, with either the Building Standards Commission or the Department of Housing and Community Development.

Discussion: San Clemente Code adoption ordinances are being prepared and are anticipated to be brought to the City Council for the first reading on November 5, 2013.

In-house staff training is currently underway to begin familiarization with new and revised code provisions. Additionally, Building Division staff is scheduled for various code training classes in October presented by the California Building Officials.

As the City has done in the past, the Building Division is working on development of a series of code update training sessions for the development community. This free training is anticipated to be offered this coming winter or spring.

Literally thousands of changes have occurred to the 2013 California Building Standards Code. Fortunately, many are minor in nature and strive to clarify provisions that were ambiguous. Additionally, many changes apply to larger more complex types of buildings such as high-rises, malls, and facilities using hazardous materials which are not prevalent in our community.

It is important for individuals in the design and construction profession to begin familiarizing themselves with the upcoming changes. A number of good publications are available from the International Code Council (ICC) that cover the code changes in great detail.

I. Highlights of Significant 2013 Model Code & State Code Changes:

California has revised and increased construction requirements in a number of are that will impact many projects beginning on January 1st. Some important changes that will impact project designers and contractors are summarized in the report sections that follow.

A more detailed listing of California Code changes has been provided in Attachments 1, 2 and 3.

A. California Energy Code Regulations

Energy efficiency standards for construction projects were first implemented in California back in 1978. Energy regulations have consistently been increased and tightened with each new code. The 2013 California Energy Code continues this trend.

Significant changes include; increased levels of required roof/ceiling/wall insulation, increased efficiency of light fixtures and bulbs, window products will require improved insulating properties, and HVAC duct systems will require leak testing.

B. California Green Building Standards Code (CALGreen)

Regulations related to sustainable construction practices were first implemented in California back in 2009 as voluntary provisions and became mandatory for ne buildings in 2011.

Probably the most significant change in the 2013 CALGreen Code that will impact designers and contractors is that the scope of these sustainable construction requirements expands to include many additions and alterations not previously covered.

2013 CALGreen will apply to new buildings and residential additions and alterations where the renovation increases the building's area, volume or size; and to nonresidential additions of 1,000 square feet or greater, and/or alterations (i.e. tenant improvements) with a permit valuation of $200,000 or above.

Additionally, SB 407 (Padilla) contains regulations that are effective on January 1, 2014. Building departments must require all noncompliant plumbing fixtures be replaced anytime any home improvement is undertaken. As currently written, plumbing fixture replacement would be required even for small projects not involving plumbing modifications. Building Officials are attempting to have this burdensome and costly requirement overturned or modified.

C. California Building Code Disabled Access Regulations (Chapter 11B)

California has been proactive in improving access to buildings and facilities for persons with disabilities since 1981. California's disabled access construction regulations pre-date the Federal regulations of the 1990 Americans with Disabilities Act (ADA).

2013 California Building Code, Chapter 11B (Accessibility to Public Buildings, Public Accommodations, Commercial Buildings and Public Housing) has been completely reorganized to follow the same format as the Federal ADA regulations. This should help better achieve consistency between the State and Federal regulations in the long run. Unfortunately, the organizational changes could result in some initial confusion for design professionals.

II. Proposed Changes to Local Amendments for Council Consideration:

Staff is requesting the Council to consider proposed changes to existing local amendments. These changes are essentially administrative policies that would eliminate some local requirements that currently exceed state minimums.

The proposed changes will result in a reduction in regulatory burden on applicants and also reduce time spent by city staff reviewing and inspecting certain projects which are minor in nature.

1. Consideration of Possible Administrative Code Modification to Work Exempt from Permits

   Currently, city codes exempt some fences not over 6 feet in height but require permits for masonry or concrete fences over 42 inches.

Possible Change - Exempt all fences not over 6 feet in height from requiring a building permit.

2. Consideration of Possible Administrative Code Modification to Work Exempt from Permits

Current state building code contains provisions that allow work to be exempt from permits when "changes, alterations or repairs are of a minor nature not affecting structural features, egress, sanitation, safety or accessibility as determined by the enforcing agency".

Possible Policy Change - Consider wider interpretation and application of existing California Code provision to possibly exempt certain small projects.

Possible projects might include:

- Retrofit window replacements in an existing opening involving no exterior stucco and/or interior wall repair;
- Door replacements in an existing opening;
- Replacement of existing dishwasher, toilets, oven, or stovetop range in same location as existing that uses existing connections.

Staff would bring back a written policy to Council for consideration at a later date listing the type of projects to be exempt from permits.

3. Consideration of Possible Administrative Code Modification Related to Time Extensions on Building Permit Application

Current local amendments allow for an unlimited number of 90 day plan check extensions. When applicants lack the time, motivation or financing to move their project forward this causes problems, as building codes are updated every three years and project plans become outdated.

Proposed Provision - 105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 360 days after the date of filing, unless such application has been pursued in good faith or permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated. **The total period of application extensions granted shall not exceed an additional 18 months.** In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan check fee.

4. Consideration of Possible Change to Local Amendment Related Requiring Underground Electrical Service for Certain Projects

Current local amendments require electrical services to be installed undergrour when:

(a) The property is to be developed with a new or relocated main building; or
(b) The remodeling, alteration, or addition to the existing main building involves more than 50% of the building floor area; or
(c) A residential building or use is converted to any nonresidential use or purpose.

Undergrounding the electrical service is very often extremely difficult to accomplish due to existing site constraints, site improvements and structures, as well as difficulty in securing public or private easements for utilities.

Possible Change - Consider elimination of this requirement or require only for new buildings. Undergrounding of electrical would be addressed at some future time if an undergrounding area was established.

Recommended Action: STAFF RECOMMENDS THAT the City Council

1. Direct Staff to draft an ordinance for future Council consideration that will exempt all fences not over 6 feet in height from building permits;
2. Direct staff to prepare a written policy that identifies and defines projects with changes, alterations or repairs of a minor nature to be exempt from permits and bring back to Council for further consideration;
3. Direct Staff to draft an ordinance for future Council consideration that will limit extensions of permit applications so the total period of application extensions granted shall not exceed an additional 18 months;
4. Direct Staff to draft an ordinance for future Council consideration that will require underground electrical only for new buildings.

Attachments: #1 – Overview of Changes to the California Energy Code
#2 – Overview of Changes to the California Green Building Standards Code
#3 – Overview of Changes to California Residential Code
#4 – Draft Version – Ordinance Adopting Building Regulations
#5 – Draft Version – Ordinance Adopting Fire Code

Notification: None

Attachment – #1

Attachment #1
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2013 CA Building Energy Efficiency Standards Overview of Changes – **RESIDENTIAL** (CZ 6)

Subchapter 7 – Low-Rise Residential – **Mandatory Features**

A number of changes have occurred including reformatting/renumbering and technical changes

Section 150.0 – MANDATORY FEATURES AND DEVICES

(a) Ceiling and Rafter Roof Insulation –

- Added Rafter to clarify intent
- Mandatory minimum ceiling/roof rafter insulation increased from R-19 to R-30.
  Regardless of method of compliance used insulation installed shall not be less than the mandatory minimum

(c) Wall Insulation –

- Mandatory minimum wall insulation now includes R-13 (2x4) and R-19 (2x6 or greater)
  Regardless of method of compliance used insulation installed shall not be less than the mandatory minimum

(d) Raised-floor Insulation –

- Mandatory minimum wall insulation increased from R-13 to R-19.
  Regardless of method of compliance used insulation installed shall not be less than the mandatory minimum

(g) Vapor Retarder –

- Added provision that vapor retarder requirements in an "unvented crawl space" (all climate zones) --- This requirement is actually already in the 2010 CRC R408.

(h) Space-Conditioning Equipment –

- Design Conditions were changed. For the purposes of sizing the space-conditioning (HVAC) system, the indoor design temperature shall be 68°F for heating (previously it was 70°F)
- Outdoor Condensing Units – now requires at least 5 feet clearance between an outdoor condensing unit and any dryer vent.

(j) Water Piping –

- Added required water pipe insulation all hot water piping ¾ inch or larger in diameter.
- Added required water pipe insulation all hot water pipes from the heating source to the kitchen fixtures.

(k) Residential Lighting –

- Table 150.0-A: adds clarity to exactly what type of lighting is "high-efficacy" and "low-efficacy".
- Table 150.0-B: increases the minimum lumens per watt required to qualify as high-efficacy.

Luminaire Power Rating	Minimum Luminaire Efficacy to Qualify as High Efficacy
5 watts or less	30 lumens per watt
over 5 watts to 15 watts	~~40~~ 45 lumens per watt
over 15 watts to 40 watts	~~50~~ 60 lumens per watt
over 40 watts	~~60~~ 90 lumens per watt

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- Added requirements related to bypassing switching devices and controls
- Added provisions for systems using Energy Management Control Systems instead of dimmers and vacancy sensors
- Lighting in Bathrooms – 2013 change REQUIRES a minimum of one high-efficacy luminaire in each bathroom; and all other lighting in bathroom shall be either high-efficacy or controlled by vacancy sensors. Previously – ALL low-efficacy lighting controlled by vacancy sensors was allowed.
- Lighting in garages, laundry, and utility rooms shall be high efficacy and controlled by vacancy sensors. Previously - ALL low-efficacy lighting controlled by vacancy sensors was allowed.
- Outdoor lighting – new specific separate requirements for single family, and low-rise multi-family have been added.
- Internally illuminated address signs - now seems to allow screw-base lights as long as the light consumes no more than 5 watts of power.

(m) Air-Distribution & Ventilation System Ducts, Plenums, and Fans –

- Duct System Sealing and Leakage Testing – required in all climate zones
- Air filters required to have MERV 6 or greater
- New cooling system duct sizing and return air filter sizing requirements added
- Minimum duct insulation increased from R-4.2 to R-6

(n) Water Heating System –

- Now requires that solar water-heating systems and collectors shall be certified and rated by the Solar Rating and Certification Corporation (SRCC)

(o) Ventilation for Indoor Air Quality –

- All dwelling units shall meet the requirement of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality. Window operation is not a permissible method of providing the Whole-Building Ventilation airflow required.
- Required whole-building ventilation airflow (per ASHRAE Standard 62.2) must now be confirmed through field verification and diagnostic testing

(q) Fenestration Products –

- New mandatory maximum U-factor of 0.58 for fenestrations, including skylight products

(r) Solar Ready Buildings –

- Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete, by the enforcement agency, on or after January 1, 2014, shall comply with "solar zone" the requirements of Section 110.10(b) through 110.10(e).
- Low-rise multi-family buildings shall comply with the "solar zone" requirements of Section 110.10(b) through 110.10(d).
- Essentially, basic requirement is a minimum 250 sq.ft. area (Solar Zone) must be provided on roof for the future installation of solar panels. The solar zone shall comply with required access, pathway, and smoke ventilation. Additionally, no obstructions, including but not limited to, vents, chimneys, architectural features, and roof mounted equipment, shall be located in the solar zone.

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Subchapter 8 – Low-Rise Residential – Prescriptive Standards

A number of changes have occurred including reformatting/renumbering and technical changes

Section 150.1(c) – Prescriptive Standards (Component Package)

No longer have three (3) prescriptive packages. Packages C, D, and E have been replaced by a one prescriptive package.

In the 2013 Energy Efficiency Standards, Package "A" is the only prescriptive package available. Additionally, Package "A" serves as the basis of the performance approach standard design and determines the energy budget of a proposed project.

Prescriptive Package "A" (Climate Zone 6 / San Clemente)

Section 150.1(c) – 1. Insulation (CZ6)

- Increased wall insulation (from R-13) to R-15 cavity insulation +R-4 continuous insulation (resulting in a U-factor equal to or less than 0.065).

Section 150.1(c) – 2. Radiant Barrier (CZ6)

- Radiant Barriers are now required in all climate zones when prescriptive Package "A" is used

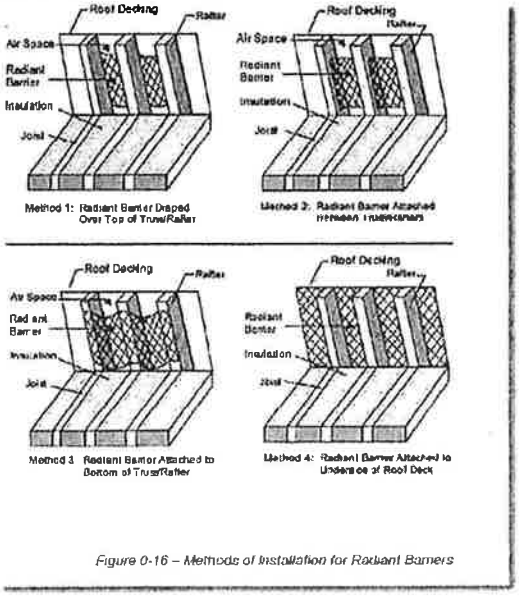

Figure 0-16 – Methods of Installation for Radiant Barriers

Section 150.1(c) – 3. Fenestration (CZ6)

- Higher performance windows are required in the 2013 Energy Efficiency Standards Maximum U = 0.32 (previously was 0.40) and Maximum Solar Heat Gain Coefficient SHGC = 0.25 (previously was 0.40)
- **New** - Maximum west-facing fenestration area shall not exceed 5% of floor area (previously not required in CZ6)

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Section 150.1(c) – 7. Space Heating & Space Cooling (CZ6)

- Space heating and space cooling equipment efficiencies have tightened since the 2010 regulations. Tables 110.2-A through 110.2-K have all been updated with higher equipment efficiencies required.

Section 150.1(c) – 8. Domestic Water-Heating Systems (CZ6)

- Prescriptive package water heating compliance no longer now allows the use of recirculating pumps.

Section 150.1(c) – 9. Space Conditioning Ducts (CZ6)

- All ducts (not located in conditioned space) shall be insulated in accordance with mandatory section 150.0(m) and Table 150.1-A (i.e. R-6 duct insulation)

Section 150.1(c) – 10. Roofing Products (CZ6)

- Climate zone 6 no longer has the cool roof requirement previously required on steep roofs with heavy roofing products. 2013 Energy Standards do not have any prescriptive requirements for cool roofs for residential buildings in climate zone 6.

Regardless of method of compliance used minimum mandatory measures must still be satisfied.

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Subchapter 9 – Low-Rise Residential – Additions/Alterations

A number of changes have occurred including reformatting/renumbering and technical changes

Section 150.2(a) 1– Additions - Prescriptive Approach

In the 2013 Energy Efficiency Standards, Package "A" is the only prescriptive package available.

Additions - Prescriptive Package "A" (Climate Zone 6 / San Clemente)

Additions shall comply with mandatory measures and comply with either Prescriptive Package "A" or the Performance calculation approach.

Additions are changes to building that increases BOTH conditioned floor area AND conditioned volume.

More prescriptive options are available for small additions than previous regulations

Section 150.2(a) 1.A. – Additions >700 square feet

- Must satisfy prescriptive Package "A" standards 150.1(c) and Table 150.1-A
- Except – Maximum allowed fenestration area is 175 sf or 20% of addition floor area (whichever is greater)
  Maximum west-facing fenestration area shall not exceed 70 sf or 5% of addition floor area (whichever is greater)

Section 150.2(a) 1.B.i. – Additions >400 square feet and ≤700 square feet

- Must satisfy prescriptive Package "A" standards 150.1(c) and Table 150.1-A
- Except – Maximum wall insulation need not exceed R-13
  Maximum allowed fenestration area is 125 sf or 25% of addition floor area (whichever is greater)
  Maximum west-facing fenestration area shall not exceed 60 sf

Section 150.2(a) 1.B.ii. – Additions ≤400 square feet

- Must satisfy prescriptive Package "A" standards 150.1(c) and Table 150.1-A
- Except – Maximum wall insulation need not exceed R-13
  Maximum allowed fenestration area is 75 sf or 30% of addition floor area (whichever is greater)
  Maximum west-facing fenestration area shall not exceed 60 sf

Section 150.2(a) – Additions ≤1,000 square feet

- Additions 1,000 square feet or less are exempt from ASHRAE Standard 6.2.Section 4 requirements to provide whole-building ventilation airflow
- Additions larger than 1,000 square feet shall meet the ASHRAE Standard 6.2.Section 4 requirements to provide whole-building ventilation airflow. The whole-building ventilation airflow rate is based on the conditioned floor area of the entire dwelling unit comprised of the existing dwelling conditioned floor area plus the addition conditioned floor area.

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Alterations - Prescriptive Package "A" (Climate Zone 6 / San Clemente)

Alterations shall comply with mandatory measures and comply with either Prescriptive Package "A" or the Performance calculation approach.

Section 150.2(b) 1– Alterations - Prescriptive Approach

Alterations are any change to the building's water heating system, space-conditioning system, lighting system, or envelope that is NOT AN ADDITION. [Does not increase floor area and volume]

ADDING OR REPLACING WINDOWS AND SKYLIGHTS

Section 150.2(b) 1.A. – Added Fenestration (CZ6)

- Alterations that add vertical fenestration and skylight area shall meet the total fenestration area (20%) and west facing fenestration area (5%), U-factor (0.32), and Solar Heat Gain Coefficient (0.25) requirements of Section 150.1(c) and TABLE 150.1-A .
- **EXCEPTION 1 (≤ 75 sf glazing added):** Alterations that add fenestration area of up to 75 square feet shall not be required to meet the total fenestration area and west-facing fenestration area requirements.
- **EXCEPTION 2 (≤ 16 sf added):** Alterations that add up to 16 square feet of new skylight area with a maximum U-factor of 0.55 and a maximum SHGC of 0.30 area shall not be required to meet the total fenestration area and west-facing fenestration area requirements.

Section 150.2(b) 1.B. – Replacement Fenestration (CZ6)

- Alterations where existing fenestration area in an existing wall or roof is replaced with a new manufactured fenestration product and up to the total fenestration area removed in the existing wall or roof, the replaced fenestration shall meet the U-factor (0.32) and Solar Heat Gain Coefficient (0.25) requirements of Sections
- **EXCEPTION 1 (≤ 75 sf glazing replaced):** Replacement of vertical fenestration no greater than 75 square feet with a U-factor no greater than 0.40 in climate zones 1-16, and a SHGC value no greater than 0.35 in climate zones 2, 4, and 6-16.
- **EXCEPTION 2:** Replaced skylights must meet a U-factor no greater than 0.55, and a SHGC value no greater than 0.30.

ADDING OR REPLACEMENT OF FURNACE OR A/C (with no ducts added, altered or replaced)

Section 150.2(b) 1.E. – Altered Space-Conditioning System - Duct Sealing (CZ6)

- New / replacement equipment must meet all minimum equipment efficiency and other mandatory requirements [150.0(h) - design loads, 150.0(i) - thermostats, 150.0(j)2 – cooling system piping insluation, 150.0(j)3, 150.0(m)1 thru 11 - ducts]

- **NEW** - In all climate zones, when a space-conditioning system is altered by the installation or replacement of space-conditioning system equipment (including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, or cooling or heating coil) **the duct system that is connected to the altered space-conditioning system equipment shall be sealed, and HERS testing is required**.
  (This was not previously required in climate zone 6.)

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Type of Mechanical System Alteration	Highlight(s) of Applicable Mandatory Measures[1]	Summary of Relevant Prescriptive Measure(s)	Exception(s) to the Prescriptive Measures	Prescriptive Compliance Form(s)
New or Complete Replacement Space Conditioning System ——(New Equipment and All New Ducts > 40 ft. in Unconditioned or Indirectly Conditioned Space)	New equipment must meet all minimum efficiency and other requirements in §150.0(h), 150.0(i), 150.0(j)2, 150.0(j)3, 150.0(m)1 thru 11; duct sealing & HERS testing with forced air duct systems	All requirements of §150.1(c)6,7,9 & 10; and heating system limited to natural gas, LPG or existing fuel type	Exemption from fuel type requirement if new system can be shown to use less TDV energy than the existing system	CF-1R-ALT or CF-1R-ALT-HVAC; MF-1R (CF-1R must be registered w/ a HERS Provider)
Altered Space Conditioning System with Forced Air Ducts	New equipment must meet all the minimum efficiency and other requirements in §150.0(h), §150.0(i), §150.0(j)2, §150.0(j)3, §150.0(m)1 thru 11	Duct sealing & HERS testing per §150.2(b)1.E	(1) Duct systems documented as previously sealed and HERS tested; or, (2) Duct systems with < 40 lineal feet in unconditioned spaces; or, (3) Existing duct system constructed, insulated or sealed with asbestos	CF-1R-ALT or CF-1R-ALT-HVAC; MF-1R (CF-1R must be registered w/ a HERS Provider)
Altered[3] Mechanical Cooling (Refrigerant-Containing) System	New equipment must meet all the minimum efficiency and other requirements in §110.2(c), §150.0(h), §150.0(i), §150.0(j)2, §150.0(j)3, §150.0(m)1 thru 11	In CZ2, 8-15: refrigerant charge per RA3.2.2 and & HERS testing per §150.2(b)1.F.i.a.; or refrigerant weigh-in charging per RA3.2.3.1 & HERS testing	(1) Packaged systems w/ correct, verified and documented refrigerant charge by manufacturer do not require HERS testing (2) When outdoor temperature < 55o F. and refrigerant weigh-in charging used and HERS test RA3.2.3.2 used, system thermostat must be Demand Response	CF-1R-ALT or CF-1R-ALT-HVAC; MF-1R (CF-1R must be registered w/ a HERS Provider)
Altered Duct Systems: When > 40 ft. of New or Replacement Ducts are Installed in Unconditioned or Indirectly Conditioned Space	New ducts must meet applicable portions of §150.0(m)1 thru 11 including duct insulation in Table 150.1-A. Entirely new and complete replacement duct systems must meet additional requirements in §150.0(m)12 & 13.	New or Replacement Duct System: duct sealing & HERS testing per §150.2(b)1.D.ii.a. Extension of Existing Ducts By > 40 ft: HERS testing of existing duct system per §150.2(b)D.ii.b.	Exception to 150.2(b)D.ii.b. Duct Sealing: when existing duct system is constructed, insulated or sealed with asbestos.	CF-1R-ALT or CF-1R-ALT-HVAC; MF-1R (CF-1R must be registered w/ a HERS Provider)

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ROOF REPLACEMENTS

Section 150.2(b) 1.H. – Roofs (CZ6)

- No longer any prescriptive "cool roof" requirements when reroofing in climate zone 6. *Previously, steep slope roofs with heavy roof products (≥ 5 psf) required compliance with solar reflectance and thermal emittance.*
- Replacements of the exterior surface of existing roofs shall meet the requirements of Section 110.8 (mandatory requirements for insulation, roofing products and radiant barriers) and the applicable requirements of subsections i and ii where more than 50 percent of the roof is being replaced:

  i. Low-rise residential buildings with **steep-sloped roofs, <u>in climate zones 10 through 15</u>** shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a minimum SRI of 16.
  ii. **Low-sloped roofs <u>in climate zones 13 and 15</u>** shall have a 3-year aged solar reflectance equal or greater than 0.63 and a thermal emittance equal or greater than 0.75, or a minimum SRI of 75.

Attachment – #2

Attachment #2

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2013 CALGreen –
Overview of Changes to Mandatory Measures

Chapter 1 – ADMINISTRATION

California Building Standards Commission (CBSC) eliminated the Matrix Adoption Tables. The problem has been that some code users cite the tables as regulatory indicators of authority, when the tables are meant to be road maps or aids to code use. In addition, the tables frequently contain errors and often are not modified to keep up with code changes.

- **101.3.1 State-regulated buildings, structures and applications –**
  California Building Standards Commission (CBSC) eliminated the Matrix Adoption Tables. The problem has been that some code users cite the tables as regulatory indicators of authority, when the tables are meant to be road maps or aids to code use. In addition, the tables frequently contain errors and often are not modified to keep up with code changes.

- **101.3.1 State-regulated buildings, structures and applications –**
  3. HCD modified this section to identify that the application of CALGreen applies to **ALL** residential buildings (not just low-rise residential as previously identified)

Chapter 2 — DEFINITIONS

- 2013 CALGreen amended definitions:
  Low-Rise Residential Building (three stories or less in height)
  Residential Building (four stories or greater in height)

- 2013 CALGreen adds a number of definitions: *including*
  Albebo (synonymous with solar reflectance)
  Compact Dishwasher (less than 8 place settings)
  Direct-Vent Appliance
  Electric Vehicle (EV)
  Electric Vehicle Supply Equipment (EVSE)
  Graywater (also gray water, grey water, greywater)
  Heat Island Effect
  High-Rise Residential Building
  IESNA (Illuminating Engineers Society of North America)
  Model Water Efficient Landscape Ordinance (MWELO)
  Mounting Height
  Potable Water
  Rainwater Catchment System
  Rainwater
  Reclaimed (Recycled) Water
  Standard Dishwasher (equal or greater than 8 place settings)
  Submeter

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- 2013 CALGreen relocates existing definitions previously located in Chapter 4 and Appendices.

Chapter 3 — GREEN BUILDING (General Scope)

- **301.1.1 (HCD) Additions and alterations – 2013 NEW** - The 2010 CALGreen Code applied only to "new" residential construction. HCD revised the 2013 CALGreen Code to now require the application of CALGreen provisions to additions or alterations of existing residential buildings where the changes increase the building's conditioned area, volume or size.

  (HCD) CALGreen requirements apply to the addition or alteration and not the existing dwelling. Only the CALGreen requirements directly associated to the addition or alteration are applicable.

  NEW - Important Conflict – Unfortunately – an exception is more restrictive.

  Exception states: *On and after January 1, 2014, residential buildings undergoing permitted alterations, additions or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1 et seq. for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.*

  The general code language in Section 301.1.1 only requires the Green Code to be applied within the specific area of the improvement, but the exception (Civil Code) seems to require all noncompliant plumbing fixtures in the home to be replaced whenever any alteration, addition or improvement is issued a permit. This requirement (exception) comes from Senate Bill 407 (Padilla).

- **301.2 (HCD) Low-rise and high-rise residential buildings – 2013 NEW** - The 2010 CALGreen applied only to low-rise residential buildings. The 2013 CALGreen clarifies that provisions may apply to low-rise **[LR]** or high-rise **[HR4+]** or to both. Requirements apply to both low-rise [LR] and high-rise [HR4+] when no specific banner is used.

- **301.3 (BSC) Nonresidential additions and alterations – 2013 Important Change** - The threshold that triggers CALGreen requirements has been lowered in the 2013 CALGreen Code. More nonresidential projects will be subject to CALGreen requirements.

  The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work. A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings **[N]** or to additions and alterations **[AA]**. When the code section applies to both, no banner will be used.

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2010 CALGreen applied when additions of 2,000 square feet or greater, and/or building alterations with a permit valuation of $500,000 or above.

- **304.1.1 Tiers** (BSC & **HCD**) – HCD has now adopted the same provisions as BSC to address when there are practical difficulties involved in complying with voluntary tier requirements. **(San Clemente has not adopted voluntary tier appendices – only the mandatory measures apply to projects)**

Chapter 4 — RESIDENTIAL MANDATORY MEASURES

Planning and Design – Division 4.1

- **4.101.1 ~~Purpose~~ Scope** – 2013 Editorial Change – HCD changed "Purpose" to "Scope". No change to enforcement intent.

- **4.102.1 Definitions** – 2013 Change – Existing definitions moved to Chapter 2

- **4.106.3 Grading and paving** – 2013 NEW – Clarification that requirements in this subsection don't apply to additions or alterations which do not alter existing site drainage.

Energy Efficiency – Division 4.2

- **4.201.1 Scope** – HCD has deleted this section since minimum energy efficiency standards are adopted by the California Energy Commission and are published in Title 24, Part 6. HCD doesn't have authority to adopt energy standards.

4.201.1 Scope – (CEC amendment) For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

Water Efficiency & Conservation – Division 4.3

- **4.303.1 Water conserving plumbing fixtures and fittings** – The "Performance Method" in the 2010 CALGreen Code has been eliminated. The 2013 CALGreen Code language now mandates prescriptive maximum flow rates for water closets, urinals, showerheads, and faucets. These maximum flow rates have also been incorporated into the 2013 CA. Plumbing Code.

Plumbing fixtures and fittings shall comply with the following:

4.303.1.1 Waters Closets: ≤ 1.28 gal/flush
4.303.1.2 Urinals: ≤ 0.5 gal/flush
4.303.1.3.1 Single Showerheads: ≤ 2.0 gpm @ 80 psi
4.303.1.3.2 Multiple Showerheads: combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gpm @ 80 psi or only one shower outlet is to be in operation at a time
4.303.1.4.1 Residential Lavatory Faucets: ≤ 1.5 gpm @ 60 psi
4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas of Residential Buildings: ≤ 0.5 gpm @ 60 psi
4.303.1.4.3 Metering Faucets: ≤ 0.25 gallons per cycle
4.303.1.4.4 Kitchen Faucets: ≤ 1.8 gpm @ 60 psi; temporary increase to 2.2 gpm allowed but shall default to 1.8 gpm

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Material Conservation and Resource Efficiency – Division 4.4

- **4.406.1 Rodent proofing** – 2013 edition REVISED to clarifies that the "sole/bottom plates" at exterior walls are the plate annular spaces to be sealed.

- **4.408.4.1 Waste stream reduction alternative (HR+4)** – 2013 edition ADDS another compliance option for High-Rise residential buildings

- **4.408.5 Documentation** – 2013 has an EDITORIAL CHANGE to the title of the "guide" publication eliminating the reference to "low-rise"

Environmental Quality – Division 4.5

- **4.502.1 Definitions** – EDITORIAL CHANGE - Existing definitions simply moved to Chapter 2

- **4.504.4 Resilient flooring systems** – 2010 CALGreen edition required that 50% of installed resilient flooring meet the specified emission limits for volatile organic compounds (VOC). 2013 CALGreen **REVISED** this to require that **80%** of installed resilient flooring meet the specified VOC emission limits.

- **Table 4.504.5 Formaldehyde Limits** – 2013 CALGreen edition has UPDATED this table to show the formaldehyde limits effective January 1, 2014

- **4.507.1 Openings** – 2013 CALGreen edition has DELETED the previous 2010 requirement that required insulated covers for whole house exhaust fans. Apparently the Energy Commission evaluated this and concluded that the energy savings did not justify the associated costs.

Chapter 5 — NONRESIDENTIAL MANDATORY MEASURES

Planning and Design – Division 5.1

- **5.101.1 ~~Purpose~~ Scope**– 2013 Editorial Change – CBSC changed "Purpose" to "Scope". No change to enforcement intent.

- **5.102.1 Definitions** – 2013 Change – Existing definitions moved to Chapter 2

- **5.106.1 Storm water pollution prevention** – 2013 NEW – Adds requirement in this subsection that apply to additions (previous code just new construction)

- **5.106.4.1.1 Short-term bicycle parking** – 2013 NEW – CBSC adds bike rack requirement that apply to additions and/or alterations which add more than nine (9) visitor vehicular parking spaces.

- **5.106.4.1.2 Long-term bicycle parking** – 2013 NEW – CBSC adds secure bike storage requirement that apply to additions and/or alterations which add ten (10) or more tenant vehicular parking spaces.

- **5.106.5.2 Designated parking** – 2013 NEW CBSC adds clean air vehicle parking requirements that apply to additions and/or alterations which add ten (10) or more vehicular parking spaces.

- **5.106.8 Light pollution reduction** – 2013 Clarifies that the Illumination Engineering Society (IES) exterior light backlight, uplight, and glare BUG ratings only apply to new construction. Maximum allowed BUG ratings remain unchanged.

- **5.106.10 Grading and paving** – 2013 NEW – New exception that clarifies that the requirements in this subsection don't apply to additions or alterations which do not alter existing site drainage.

Energy Efficiency – Division 5.2

- **5.201.1 Scope** – For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards in Part 6 of Title 24.

Water Efficiency & Conservation – Division 5.3

- **5.302.1 Definitions** – definitions have been relocated to Chapter 2

- **5.303.1 Meters** - 2013 NEW CBSC adds requirement for separate meters to apply to additions in excess of 50,000 square feet. 2010 CALGreen provision applied just for new construction.

- **5.303.2 Water reduction** – The 2013 CALGreen Code language now mandates prescriptive maximum flow rates for water closets, urinals, showerheads, and faucets. A new exception still allows the use of a baseline calculation to demonstrate a 20% overall water use reduction.

  Plumbing fixtures and fittings shall comply with the following:

  5.303.3.1 Waters Closets: ≤ 1.28 gal/flush
  5.303.3.2 Urinals: ≤ 0.5 gal/flush
  5.303.3.3.1 Single Showerheads: ≤ 2.0 gpm @ 80 psi
  5.303.3.3.2 Multiple Showerheads: combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gpm @ 80 psi or only one shower outlet is to be in operation at a time

- **5.303.2.1 Areas of addition or alteration** –

Material Conservation and Resource Efficiency – Division 5.4

Environmental Quality – Division 5.5

Chapter 5 - Division 5.7 - Additions and Alterations to Existing Nonresidential Buildings

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This entire division has been eliminated and provisions have been redistributed into applicable sections of Chapter 5.

- o

Chapter 6 — REFERENCED ORGANIZATIONS AND STANDARDS

- o **601.1** - Additional standards referenced in various sections of the 2013 CALGreen Code have been added to the list of organizations and standards

p:\mike docs\codes\2013 calgreen overview of changes.docx

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Attachment – #3

Attachment #3

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2012 IRC / 2013 CRC - Overview of Changes

Chapter 1 – Scope and Application – Division I – California Administration

As in the previous edition, Division I consists of state amendments (by HCD and SFM) that:
Define various occupancy classifications used in California;
Define the scope of authority for HCD, SFM and local enforcing agency.

Essentially HCD & SFM readopted amendments from the 2010 CRC for the 2013 CRC.
A few minor changes:

- **1.1.3 Scope** – HCD added "efficiency dwelling unit" (definition was also added in Chapter 2)
  HCD & SFM included have included language that allows owner-occupied lodging houses with five or fewer guestrooms to be constructed in accordance with CRC

- **1.8.1 Purpose** – HCD added new section for clarification
  This change also resulted in other existing sections being renumbered

- **1.8.4.4 Inspections** – HCD added references to more required inspections
  Moisture content verification, and operation and maintenance manual referenced to correlate with CALGreen requirements

Chapter 1 — Division II – Administration

As in the previous edition, Division II consists of model code (IRC) sections related to administering the code. Sections include Duties and Powers, Permits, Work exempt from permits, Application time limits, Expiration of permit, Required construction documents, Fees, Inspections, etc...

This administrative chapter must be locally modified to incorporate local fees, application processes, and fees. Current local amendments to this chapter (2010 CRC) are expected to be maintained when the 2013 CRC is locally adopted.

Very few changes by HCD since most of their requirements are contained in Division I.
2012 IRC was changed very little from the 2009 IRC.

- **R102.4 Referenced code and standards** – minor wording & format changes – not substantive

- **R105.2 Work Exempt from Permit** – Same HCD amendment as previous code.
  One-story detached accessory structures used as tool and storage sheds, etc... floor area does not exceed ~~200~~ 120 square feet.

- **R105.2 Work Exempt from Permit** – changed to now exempt fences not over **7** feet.
  Note that this was NOT amended by the State.

  Note - San Clemente is strongly considering the elimination of our local amendment that exempts fences not exceeding 3 feet and using model IRC language.

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Note – San Clemente is strongly considering a more lenient use of the administrative provision:

1.8.4.1 ***Permits.*** *A written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, moving or alteration of any building or structure.*

Exceptions:

1. Work exempt from permits as specified in Chapter 1, Scope and Application, Division II, Administration, Section R105.2.

2. Changes, alterations or repairs of a minor nature not affecting structural features, egress, sanitation, safety or accessibility as determined by the enforcing agency.

Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of other provisions of law or this code.

- **R109.1 Type of inspections** – HCD added references to more required inspections
- **R109.1.4.1 Moisture content verification** added to correlate with CALGreen requirements
- **R109.1.6.2 Operation and maintenance** manual added to correlate with CALGreen requirements

Chapter 2 — Definitions

2012 IRC was changed very little from the 2009 IRC.

- **R202 Definitions** – added definition for "Structural Composite Lumber"

Essentially HCD & SFM readopted amendments from the 2010 CRC for the 2013 CRC.

Many definitions in the IRC relate to mechanical, plumbing, and electrical chapters which are not adopted by the State of California. Many definitions have been DELETED and are not included in the CRC since these terms are defined in other state codes.

SFM readopted definitions not part of the IRC (as done in previous edition of CRC)

Chapter 3 — Building Planning

- **R300 Site Drainage** – HCD added a section related to site drainage. The addition of this section simply correlates with CALGreen site drainage requirements. No substantive change.
- **R301.1.1 Alternative provisions** – HCD readopted same amendments specific to California from the 2010 CRC for the 2013 CRC
- **R301.2.1 Wind Design Criteria** – 2012 IRC revised text to clarify the intent and application of IRC wind provisions. New wind maps update wind speeds for the United States to correlate with the 2010 edition of ASCE 7. High-wind regions that REQUIRE structural design are better identified. (Note – no changes to San Clemente)

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- **R301 .2.1.1 Wind Limitations and Wind Design Required** – 2012 IRC revised text to clarify the intent and application of IRC wind design provisions. The IRC contains prescriptive provisions to adequately resist wind loads. New language clarifies that in regions where wind speeds exceed limitations of the code or otherwise outside the scope of prescriptive provisions, design to resist wind loads must be in accordance with one of the five design standards listed.
  (Note – no affect on San Clemente)

- **R301.2.1.2 Protection of Openings** – Applicable in windborne debris regions, 2012 IRC revisions to text clarify that protection from windborne debris is required for all exterior "glazing" in a building, not just windows.
  (Note – no affect on San Clemente)

- **R301.2.1.4 Exposure Categories** – 2012 IRC minor edit to "Exposure C" that eliminated previous text "... ~~and shorelines in hurricane prone regions~~." The 2012 IRC now designates these areas as region where wind design is required, so the CBC not the CRC would be used.
  (Note – no affect on San Clemente)

- **R301.2.2 Seismic Provisions** – 2012 IRC reworded this section rather than use "exceptions". No intent to change requirements. Simply clarifies when the seismic provisions of the IRC can be used depending on occupancy and seismic design category.

- **Figure R301.2(2) – Seismic Design Categories** – 2012 IRC / 2013 CRC seismic design category map contours have changed from previous code. [Looks like San Clemente is SDC D_1 and D_2]

- **R301.....** HCD readopted same amendments specific to California from the 2010 CRC for the 2013 CRC. HCD amendments of various code sections simply make editorial changes to reference California Building Codes rather than "International" Codes

- **R301.2.2.2.5 Irregular buildings** – 2012 IRC slight rewording to clarify but no change to intent. "The seismic provisions of this code (i.e. IRC) shall not be used for irregular structures located in Seismic Design Categories C, D_0, D_1, and D_2."

- **R301.2.2.3.1 Height limitations** – slight change to 2012 IRC text for determining number of stories. "...above grade..." revised to "...above ***grade plane***..."

- **R301.2.2.4, R301.2.4, and R301.3** – 2012 IRC made minor clarifying changes to text. No change of intent.

- **Table R301.5** – 2012 IRC clarified how and when to apply live loads in "uninhabited attics <u>without</u> storage" and "uninhabited attics <u>with limited</u> storage".

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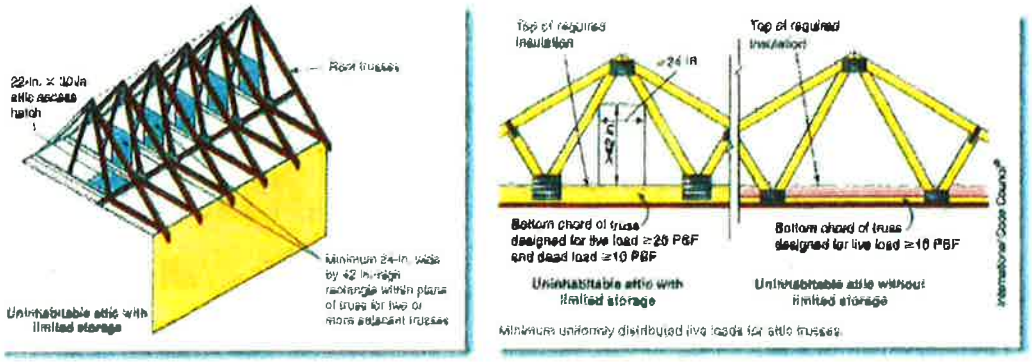
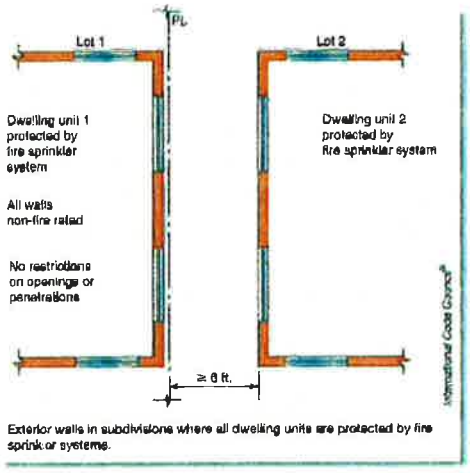


- **R301.7 Deflection** – 2012 IRC added wind load to text. Deflection due to wind was previously included in Table R301.7 (2009 IRC) but wind wasn't mentioned in the text. No change of intent.

- **R302.1 Exterior Walls Table R302.1.(2)** - 2012 IRC has now incorporated BOTH **Table R302.1(1)** exterior walls for dwelling without a fire sprinkler system and **Table R302.1(2)** exterior walls for dwelling <u>with</u> a fire sprinkler system. The 2010 CBC included this design provision as a state amendment but now it has been incorporated into the model IRC.

- **R302.1 Exterior Walls – footnote "a" –** new footnote seems to be applicable for "zero-lot-line" construction. Allows 6 feet minimum separation between dwellings when fully fire sprinklered.



- **R302.5 Dwelling/garage opening/penetration protection** - 2012 IRC was modified to required doors between garage and dwelling to be self-closing, but IRC still doesn't require self-latching.

- **R302.5.1 Opening protection** - 2013 CRC will include an amendment from SFM that requires "self-closing <u>and self-latching</u>". Effectively there is no change. This has been required in California for many years.

- **R302.6 Dwelling/garage fire separation** - 2013 CRC will continue to include an existing SFM amendment (not in the model code) that states *"A separation is not required between the*

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dwelling unit and carport, provided the carport is entirely open on two or more sides and there are not enclosed areas above". (No change to existing CA regulations)

- **R302.9.5 Stability** - 2013 CRC will continue to include an existing SFM amendment (not in the model code) that states *"Interior finish materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subjected to room temperatures of 200°F (93°C) for not less than 30 minutes".* (No change to existing CA regulations. Note – I'm not exactly sure how this is verified. No test standard is referenced)

- **R303.1 Habitable rooms** (light & ventilation) –
  Exception #1 – 2012 IRC eliminated specific air change criteria and instead now simply references mechanical code.
  Exceptions #4 & #5 - HCD readopted the same amendments specific to California related to passive solar energy collectors from the 2010 CRC for the 2013 CRC.

- **R303.3 Bathrooms** - NEW - 2013 CRC has been amended by HCD slightly changing the exhaust rate in a bathroom. [50 cfm (intermittent) **20** ~~25~~ cfm (continuous) ventilation]

- **R303.3.1 Bathroom exhaust fans** - NEW - 2013 CRC has been amended by HCD adding text to correlate ventilation and humidity control with the CALGreen code.

- **R303.5.1 Intake openings** – CHANGE – 2012 IRC has been changed the minimum separation from a contaminant source (was 2 feet, now 3 feet).

  R303.5.1 Intake openings. *Mechanical and gravity outdoor air intake openings shall be located a minimum of 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks, except as otherwise specified in this code. Where a source of contaminant is located within 10 feet (3048 mm) of an intake opening, such opening shall be located a minimum of* ***3*** ~~*2*~~ *feet (610 mm) below the contaminant source. (CMC Section 311.3 already requires this)*

  For the purpose of this section, the exhaust from dwelling unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.

- **R303.8 Required glazed openings** – 2010 CRC HCD amendment carries over into 2013 CRC
- **R303.8.1 Sunroom additions** – 2010 CRC HCD amendment carries over into 2013 CRC
- **R303.8.1.1 Passive solar energy collectors** - 2010 CRC HCD amendment carries over into 2013 CRC
- **R304.3 Minimum dimensions** - 2010 CRC HCD amendment carries over into 2013 CRC (RE: limited-density owner-built rural dwelling)

- **R304.5 Efficiency dwelling units** – NEW - HCD amendment for 2013 CRC specifying minimum requirements for an "efficiency dwelling unit"

- **R305.1 Minimum height** - 2010 CRC HCD amendment carries over into 2013 CRC
- **R307.1 Space required** - 2010 CRC HCD amendment carries over into 2013 CRC (RE: plumbing fixture spacing per CPC. Figure R307.1 is not adopted by CA)

- **R308 Glazing** – 2012 IRC reorganizes the hazardous glazing provisions for ease of use.

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- **R308.4.6 Glazing adjacent stairs and ramps** – 2012 IRC will require glazing adjacent to stairs that is less than 36" above walking surface to be considered a hazardous location. Previous code. glazing less than 60" above walking surface was hazardous.

- **R308.6.1 (Skylights) definitions** – added "tubular daylighting device". 2012 IRC now requires these devices to be tested.

- **R309.4 Automatic garage door openers** - 2010 CRC HCD amendment carries over into 2013 CRC. 2012 IRC adds requirement that garage door openers be listed and labeled.

- **R309.5 Fire sprinklers (garages) location on property** – NEW - 2012 IRC has been modified by SFM for 2013 CBC. This is expected to be further amended by OCFA per our current fire sprinkler requirements.

- **R309.6 Fire sprinklers attached garages, and carports with habitable space above** – NEW - 2012 IRC has been modified by SFM for 2013 CBC. This is expected to be further amended by OCFA per our current fire sprinkler requirements.

- **R310.1 Emergency escape and rescue required** – 2012 IRC includes slightly revised wording that was further modified by HCD. Sill height is no longer used. In some cases, windows have a stop or channel that extends above the surface of the window sill. 2013 CRC now states ... *"Where emergency escape and rescue openings are provided they shall have the bottom of the clear opening not greater than 44 inches measured from the floor."...*

- **R310.1.4 Operational constraints** - 2013 CRC will continue to include an existing SFM amendment (not in the model code) that states *"Emergency escape and rescue openings shall be maintained free of any obstructions other than those allowed by this section and shall be operational from the inside of the room without the use of keys, tools or special knowledge".* (No change to existing CA regulations)

- **R310.2.2 Drainage** – 2012 IRC added drainage requirements at window wells

- **R310.5 Emergency escape windows under decks and porches.** ~~Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck allows the emergency escape window to be fully opened and provides a path not less than 36 inches (914 mm) in height to a yard or court.~~ 2013 CRC will continue to include an existing SFM amendment deleting this provision from the model code. (No change to existing CA regulations)

- **R311.3.1 Floor elevations at the required egress doors** – 2012 IRC slightly modifies the text to clarify that 1 ½ inch measurement from top of threshold are measured to "finished" floors and that the exception allowing 7 ¾ inch from top of threshold ONLY applies on the "exterior side" of required egress door.

- **R311.4 Vertical egress** - 2013 CRC will continue to include an existing SFM amendment (not in the model code) that limits travel distance (50 feet maximum) to reach an exit stair when more than one story above an egress door. (No change to existing CA regulations)

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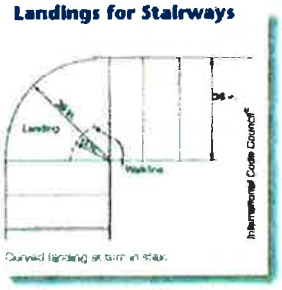
- **R311.7.3 Vertical rise** – <u>New</u> - 2012 IRC added requirement stating *"A flight of stairs shall not have a vertical rise larger than 12 feet between floor levels or landings"*. Although codes in the past included this requirement, it was somewhat difficult to find this long standing provision in the 2009 IRC and 2010 CRC (it was buried in an exception).

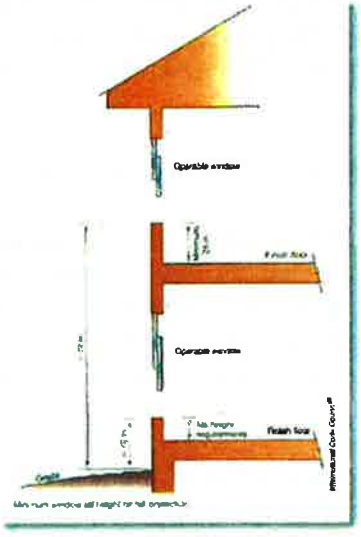
- **R311.7.5 Stair treads and risers** – 2012 IRC essentially just reorganizes the existing content (no real changes)

- **R311.7.6 Landings for stairways** – 2012 IRC now specifically permits angular and circular stair landings with certain dimensions.



- **R312.1.2 Guardrail height** – 2010 CRC amendment by HCD requiring guardrails to be a minimum of 42 inches in height (rather the 36" required in IRC) has been carried over to the 2013 CRC.

- **R312.2 Window fall protection** – Existing 2009 IRC provisions related to minimum window sill height were relocated from Chapter 6 to Section R312.2 in the 2012 IRC.



- **R313.1 Townhouse automatic fire sprinkler systems** - 2010 CRC amendments by SFM have been carried over to the 2013 CRC. Additionally, the existing local amendments by OCFA and City will continue to be in effect.

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- **R313.2 One- and Two-family dwellings automatic fire sprinkler systems** - 2010 CRC amendments by SFM have been carried over to the 2013 CRC. Additionally, the existing local amendments by OCFA and City will continue to be in effect.

- **R313.3 Dwelling unit fire sprinkler systems** - 2010 CRC amendments by SFM (detailed fire sprinkler design requirements) have been carried over to the 2013 CRC.

- **R313.3.5.3 Connections to automatic fire sprinkler system** – SFM has added a state amendment for the 2013 CRC that requires potable water supply to be protected against from fire sprinkler systems with a backflow prevention device. *But - there is an exception to this requirement that makes it not applicable for a typical 1 & 2 unit residential buildings.*

  Exception: *Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code and are not provided with a fire department connection, backflow protection for the water supply system shall not be required.*

- **R314 Smoke Alarms** – SFM has continued to make significant amendments to the requirements for smoke alarms.

- **R314.1 Smoke detection and notification** – requires systems and components to be listed and approved by the California State Fire Marshal (same as current code)

- **R314.3.1 Alterations, repairs and additions** – IRC code language exempting certain projects from triggering smoke alarms has been deleted by SFM (same as current code)

- **R314.3.2 Smoke alarms** – SFM added new section for 2013 CRC that requires smoke alarms to be tested and maintained and to be replaced after 10 years from the date of manufacture.

- **R314.3.3 Conventional ionization smoke alarm** – SFM added new section for 2013 CRC that requires conventional ionization smoke alarms that are solely battery powered to be equipped with a ten year battery.

- **R314.4 Power source** – existing SFM amendments have been carried over to the 2013 CRC

- **R314.5 Interconnection** – IRC model code language related to interconnecting smoke alarms has been deleted and amended by SFM (same as current code)

- **R314.3.4 Specific location requirements** – SFM has added this section in the 2013 CRC to more clearly identify proper locations for smoke alarms (extracted from NFPA 72)

- **R314.6 Existing Group R-3 occupancies** – Specifies requirements for smoke alarms in existing Group R-3 occupancies. (provisions same as current code)

- **R315 Carbon Monoxide Alarms** – 2010 CRC amendments by SFM have been carried over to the 2013 CRC. (same as current code)

- **R316.4 (Foam Plastic) Thermal Barrier** – 2012 IRC model code language has been modified to now reference an approved thermal barrier acceptance criteria as an alternative to code

requirement for a thermal barrier of minimum ½" gypsum wallboard when foam plastic insulation is used.

- **R316.5.13 (Foam Plastic) Floors** – 2012 IRC model code language adds new provisions that allow the installation of foam plastic insulation as part of a floor system without requiring a thermal barrier on the upper surface.

- **R317.3 (R317.3.1, R317.3.2, R317.3.3, and R317.3.4) Fasteners and connectors in contact with preservative-treated and fire-retardant-treated wood** – 2012 IRC model code adds clarification that "Fasteners, *including nuts and washers*, and connectors in contact with preservative-treated and fire-retardant-treated wood require special corrosion protection.

- **R317.4.1 (Wood/Plastic Composites) Labeling** – 2012 IRC model code adds language that requires the label on wood/plastic composites boards, guardrails, etc.. includes the allowed loading and maximum span.

- **R320 Accessibility** - 2010 CRC amendments by HCD have been carried over to the 2013 CRC. Clarifies that residential buildings cannot use fire walls to create separate buildings in order to avoid California Chapter 11A disabled access regulations. (same as current CRC)

- **R324.1 Construction waste management** – HCD has added this section in the 2013 CRC to simply coordinate with the CALGreen Code Chapter 4, Division 4.4 (no change to requirements)

- **R325 Special Provisions for Licensed 24-Hour Care Facilities in a Group R3.1** - 2010 CRC amendments by SFM have been carried over to the 2013 CRC without change.

- **R326 Large Family Day Care Homes** - 2010 CRC amendments by SFM have been carried over to the 2013 CRC without change.

- **R327 Material and Construction Methods for Exterior Wildfire Exposure** - 2010 CRC amendments (VHFHSZ construction requirements) by SFM have been carried over to the 2013 CRC without change.

- **R328 Electric Vehicles** - 2010 CRC amendments by SFM have been carried over to the 2013 CRC without change.

- **R330.1 Finish material pollution control** – HCD has added this section in the 2013 CRC to simply coordinate with the CALGreen Code Chapter 4, Division 4.5 (no change to requirements)

- **R331 Solar Photovoltaic Panels/Modules** - 2013 CRC contains new amendments by SFM. SFM Photovoltaic Installation Guidelines have been incorporated into CRC. These requirements address marking system components, location of system components, as well as roof access and pathways on the roof.

Chapter 4 — Foundations

- **R401.2 Requirements** – Existing minor amendment by HCD in 2010 CRC (related to owner-built rural dwellings) has been carried over to the 2013 CRC without change.

- **R401.4.1 General and where required for applications regulated by HCD** – 2010 CRC amendments by HCD have been carried over to the 2013 CRC essentially without change.

- **R401.4.1.1.4. Liability** - HCD has added this new section in the 2013 CRC to indemnify enforcement agencies.

- **R403.1.3 Seismic reinforcing** – Exception has been revised in the 2012 IRC. Now ONLY isolated plain concrete footings will be allowed.

- **R404.1.9 Isolated masonry** – NEW - 2012 IRC (and 2013 CRC) has added prescriptive provisions for the construction of isolated masonry pier foundations.

- **R405.1 Foundation drainage** – NEW - 2012 IRC (and 2013 CRC) has added prescriptive provision that requires a filter membrane when perforated pipe foundation drain is used.

- **R408.3 Unvented crawl space** – Existing amendment by HCD in 2010 CRC has been carried over to the 2013 CRC without change

Chapter 5 — Floors

- **R501.3 Fire protection of floors** – New – 2012 IRC – with some exceptions, the code now requires a minimum of ½ inch gypsum board (or equivalent) to be applied to the underside of floor assemblies. 2013 IRC has minor amendment from SFM related to appropriate reference to fire sprinkler provisions.

- **R502.1.3 End-jointed lumber** – New – 2012 IRC – Where end-jointed lumber is used in a fire-resistive floor assembly the lumber grade mark shall include the designation (Heat Resistant Adhesive" or "HRA".

- **R505 Steel Floor Framing** – No changes noted

- **R506.2.3.1 Capillary break** - HCD has added this section in the 2013 CRC to simply coordinate with the CALGreen Code Chapter 4, Division 4.5 (no change to requirements)

- **R507 Decks** – Deck provisions have been relocated from 2009 IRC (R502.2.2) to R507 in 2012 IRC.

- **R507.2.1 Placement of lag screws or bolts in deck ledgers and band joists** – previously the IRC only addressed the placement of lags and bolts in the deck ledger. A new Table 507.2.1 in 2012 IRC now includes minimum end and edge distances and spacing of lags and bolts in BOTH deck ledgers and band joists. Decks not complying with prescriptive requirements in R507 must be designed in accordance with engineering practices.

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Chapter 6 — Walls

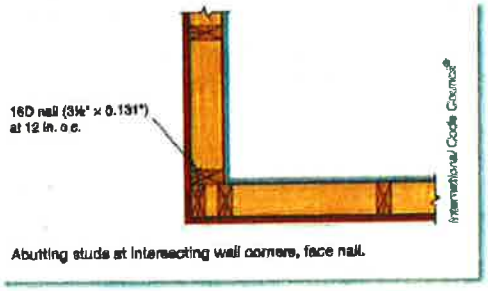
- **R601.3 Vapor retarders** – 2012 IRC relocated these requirements to R702.7

- **R602.1.1 End-jointed lumber** – New – 2012 IRC – Where end-jointed lumber is used in a fire-resistive wall assembly the lumber grade mark shall include the designation (Heat Resistant Adhesive" or "HRA".

- **Table R602.3(1) Fastener Schedule** – New – 2012 IRC – incorporates a few new nailing requirements

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

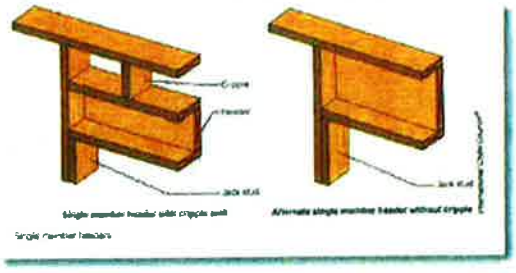
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING OF FASTENERS
	Roof		
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2½" × 0.113")	—
2	Ceiling joists to plate, toe nail	3-8d (2½" × 0.113")	—
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	—
4	Collar tie to rafter, face nail or 1¼" × 20 gage ridge strap	3-10d (3" × 0.128")	—
5	Rafter or roof truss to plate, toe nail	3-16d box nails (3½" × 0.135") or 3-10d common nails (3" × 0.148")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3½" × 0.135") 3-16d (3½" × 0.135")	—
	Wall		
7	Built-up studs-face nail	10d (3" × 0.128")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	16d (3 ½" x 0.135")	12" o.c.
9	Built-up header, two pieces with ½" spacer	16d (3½" × 0.135")	16" o.c. along each edge
26	Rim joist or blocking to sill plate, toe nail	8d (2 ½" x 0.113")	6" o.c.
		2-8d (2½" × 0.113")	



Abutting studs at intersecting wall corners, face nail.

- **R602.3.4.1 Rodent proofing** – HCD has added this section in the 2013 CRC to simply coordinate with the CALGreen Code Chapter 4, Division 4.4 (no change to requirements)

- **R602.7.1 Single member headers** – New – 2012 IRC – The code now includes prescriptive provisions for single member headers to be used at small openings under certain conditions.



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- **R602.10 Wall bracing** – 2012 IRC contains revised provisions when prescriptive wall bracing is used to resist lateral loads. In additional to technical changes the locations of provisions have been significantly reorganized. Spacing of braced wall lines and offsets has been revised. Locations of braced wall panels on braced wall line have been revised. *This is just a very brief summary of changes. These provisions require careful and complete review by anyone utilizing these prescriptive wall bracing specifications.*

- **R602.12 Simplified wall bracing** – 2012 IRC contains new "simplified" wall bracing provisions that can be used if eight (8) conditions are satisfied. Condition #7 requires that a structure be located in Seismic Design Category A, B or C for detached one- and two family dwellings. *BUT - San Clemente is located in SDC D_1 and D_2* ***so the simplified wall bracing provisions cannot be utilized in San Clemente***.

- **R603 Steel Wall Framing** – 2012 IRC - No significant changes noted

- **R606 Masonry Wall Construction** – 2012 IRC - No significant changes noted

- **R607.3 Masonry – Installation of Wall Ties** – 2012 IRC – A requirement for minimum mortar cover of 5/8 inch for wall ties was added. Matches the IBC requirements.

- **R611 Concrete Wall Construction** – 2012 IRC - No significant changes noted

- **R613.4 SIP wall panels** – 2012 IRC – Tables R613.5(1) and R613.5(2) have revised minimum panel thicknesses for structural insulated panels.

- **Other Editorial Amendments by HCD** – HCD carried over existing 2010 CRC editorial amendments to 2013 CRC Sections R606.1.1, R611.1, R613.1 – these amendments reference California B&P Code sections that relate to the practice of architecture or engineering in the state.

Chapter 7 — Wall Covering

- **R702.7 Vapor retarders** –These requirements were previously in Chapter 6. The existing HCD 2010 CRC amendments that reference California Climate Zones are carried over to the 2013 CRC. (no change to requirements)

- **R703.1 .1 Water resistance** - HCD carried over existing 2010 CRC editorial amendment to 2013 CRC that references the California Energy Code for condensation protection. (no change to requirements)

- **R703.7.3.2 Masonry Veneer Lintel** – The 2012 IRC adds a 4th requirement when supporting masonry above garage doors and other large openings. New Table R703.7.3.2 "Height of Masonry Veneer above Opening" has been included that establishes minimum and maximum height of masonry veneer above an opening.

- **R703.7.4 Masonry Veneer Anchorage** – The 2012 IRC modifies the current code section. Previous narrative has been moved to a new Table R703.7.4 for improved clarity.

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- **R703.7.4.1 Size and Spacing** – The 2012 IRC modifies the current code section. The maximum horizontal spacing of ties has been increased from 24 inches to 32 inches.

- **R703.7.4.2 Grout fill** – General code requirements in Table R703.7.4 call for a 1 inch air space between exterior veneer and wall sheathing. As an alternative to the air space, Section R703.7.4.2 now allows grout (not mortar) to fill the air space.

- **R703.8 Flashing** – This section of the 2012 IRC now spells out several alternatives for installing flashing at exterior doors and windows.

- **R703.12 Adhered Masonry Veneer Installation** – This section of the 2012 IRC now includes specific requirements related to clearances above exterior paved and/or earth areas and weep screed flashing requirements.

- **R703.12.1 Clearances** - On exterior stud walls, adhered masonry veneer shall be installed:

  1. Minimum of 4 inches above the earth;
  2. Minimum of 2 inches above paved areas; or
  3. Minimum of 1/2, inch above exterior walking surfaces which are supported by the same foundation that supports the exterior wall.

Chapter 8 — Roof – Ceiling Construction

- **R802.1.2 End-jointed lumber** – New – 2012 IRC – Where end-jointed lumber is used in a fire-resistive roof-ceiling assembly the lumber grade mark shall include the designation (Heat Resistant Adhesive" or "HRA".

- **R802.1.6 Structural composite lumber** – New – 2012 IRC – Establishes and references ASTM D 5456 Standard for structural composite lumber.

- **R802.3.2 Ceiling joists lapped** – New – 2012 IRC – Establishes minimum nailing requirements where lapped ceiling joists provide resistance to rafter thrust.

- **R802.7 Cutting, drilling and notching** – 2012 IRC modifies subsection title from "Cutting and notching" to "Cutting, drilling and notching".

- **R802.7.1 Sawn lumber** – 2012 IRC simplifies this subsection by just referencing R502.8.1 for cutting, drilling, and notching limitations rather than repeating the requirements since the locations and sizes for notches and bored holes is the same as joists, beams in floor systems.

  Additionally, previous exception has been replaced with new subsections related to notching cantilevered rafters and ceiling joists taper cuts with clarifying Figures (see below)

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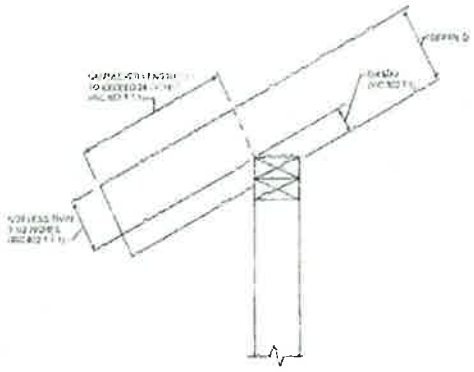

FIGURE R802.7.1.1
RAFTER NOTCH

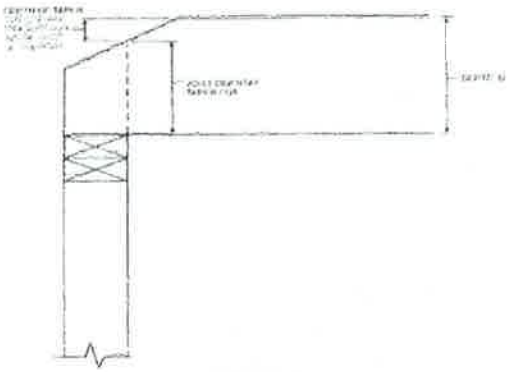

FIGURE R802.7.1.2
CEILING JOIST TAPER CUT

- **R802.11 Roof tie-down** – 2012 IRC modifies section to clarify when connectors to resist uplift are required. Table R802.11 has been greatly expanded to more clearly cover a variety of roof slope, wind speed, wind exposure conditions and rafter/truss spacing.

- **R804.3.7** (Cold-formed steel) **Roof trusses** – 2012 IRC modifies to add a reference to truss bracing requirements.

- **R806.1 Roof Ventilation required** – 2012 IRC adds back a code provision that was lost during the transition from UBC to IRC. In certain warm, dry climates, experience has shown that attics without ventilation do not experience the detrimental effects of moisture. The 2012 IRC once again has an exception to attic ventilation: *Attic ventilation shall not be required when determined not necessary by the code official due to atmospheric or climatic conditions.*

- **R806.2 Minimum vent area** – HCD amends the 2012 IRC to coordinate with the California Climate Zone designations. AND – The minimum net free ventilation area shall be 1/150 of the area being vented (same as always) BUT – 2012 Change - The reduction in net free ventilation area to 1/300 of the area being vented now requires no less than 40% and not more than 50% of the required ventilating area to be placed in the upper portion of the roof (previously 50% and 80%)

- **R806.5 Unvented attic and unvented enclosed rafter assemblies** – 2012 IRC adds text to clarify that the unvented attic provisions also apply to rafter assemblies in vaulted ceilings. HCD carried over existing 2010 CRC amendments to 2013 CRC to coordinate requirements with California Climate Zones.

Chapter 9 — Roof Assemblies

- **R902.1 Roofing covering materials** – SFM carried over existing 2010 CRC amendments to 2013 CRC. Existing San Clemente amendments are also carried forward to the 2013 CRC.

- **R902.2 Fire-retardant-treated shingles and shakes** – SFM carried over existing 2010 CRC amendments to 2013 CRC.

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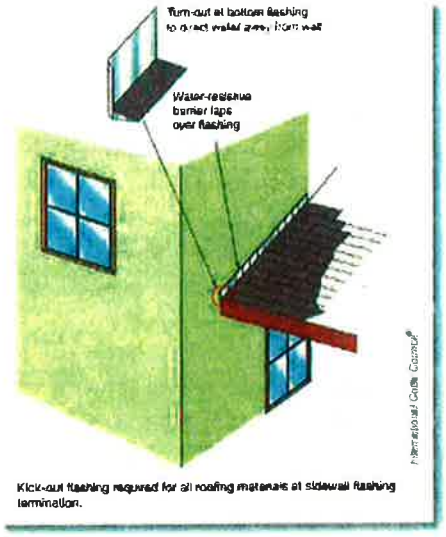
- **R902.3 Building integrated photovoltaic systems** – SFM added new provisions to 2013 CRC that photovoltaic systems comply with roof covering fire classifications.

- **R902.4 Photovoltaic panels and modules** – SFM added new provisions to 2013 CRC that PV modules be tested, listed and identified with a fire classification per UL 1703. (UL 1703 covers flat-plate photovoltaic modules and panels intended for installation on or integral with buildings, or to be freestanding, in accordance with the National Electrical Code, NFPA 70, and Model Building Codes.)

- **R903.2.1 Locations** (Flashing) – 2012 IRC adds a new provision for kick-out sidewall flashing. Flashing shall be installed to divert water away from where the eave of a sloped roof intersects a vertical sidewall.



Kick-out flashing required for all roofing materials at sidewall flashing termination.

- **R903.2.2 Crickets and saddles** – 2012 IRC adds a new provision to clarify that cricket provisions do not apply when skylights are installed and flashed in accordance with the manufacturer's instructions.

- **R903.4 Roof drainage** – Existing City of San Clemente local amendment remains in place that requires roof water be drained and conveyed to an approved location using approved drainage devices or other non-erodible surface drainage.

- **R903.4.1 Secondary drains or scuppers** – 2012 IRC revises wording of existing provision to clarify. (no actual change to current requirements)

- **R903.5 Hail exposure** – 2012 IRC eliminated previous provisions related to hail exposure.

- **R905.2.7.2 Underlayment and high winds** (Asphalt Shingles) – 2012 IRC adds new requirements for installation of roofing underlayment where wind speed is 120 mph or greater. (no impact to San Clemente since design wind speeds are below 120 mph)

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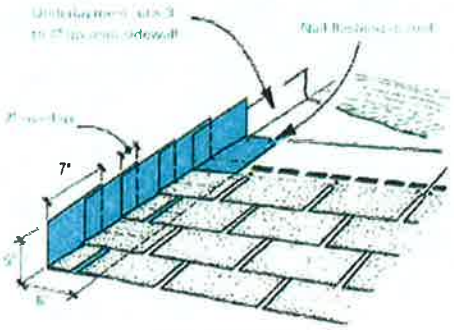
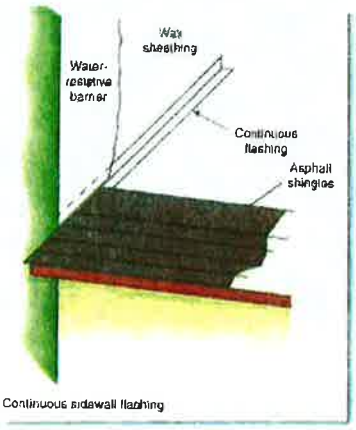
- **R905.2.8.3 Sidewall flashing** (Asphalt Shingles) – 2012 IRC adds new provision that now allows "continuous flashing" under asphalt shingles at the wall-to-roof intersection where "step flashing" was previously required.

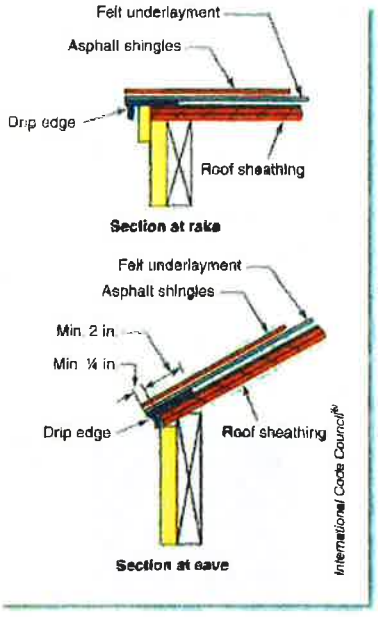


Step Flashing



Continuous Flashing (now allowed)

- **R905.2.8.5 Drip edge** (Asphalt Shingles) The 2012 IRC adds new requirement for installation of drip edge for ALL asphalt roof installations and specifies the proper installation.



- **R905.3.3.3 Underlayment and high winds** (Clay & Concrete Tiles)
- **R905.4.3.2 Underlayment and high winds** (Metal Roof Shingles)
- **R905.5.3.2 Underlayment and high winds** (Roll Roofing)
- **R905.6.3.2 Underlayment and high winds** (Slate Shingles)
- **R905.7.3.2 Underlayment and high winds** (Wood Shingles)
- **R905.8.3.2 Underlayment and high winds** (Wood Shakes)
- **R905.10.5.1 Underlayment and high winds** (Metal Roof Panels)
  2012 IRC adds new requirements for installation of roofing underlayment where wind speed is 120 mph or greater. (no impact to San Clemente since design wind speeds are below 120 mph)

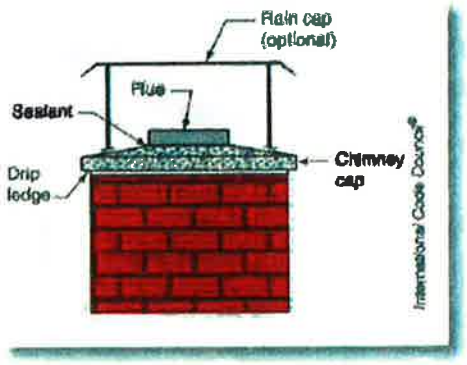
- **R905.16 Photovoltaic modules/shingles** - 2012 IRC adds new provisions for installation of photovoltaic modules / shingles

- **R908 Recovering versus replacement** – 2012 IRC removes provisions related to hail. Previous codes contained more restrictive reroofing provisions in areas subject to hail damage. It had been thought that multiple roofing layers created a softer substrate and resulted in more severe hail damage.

- **R908 Solar Photovoltaic Panels/Modules** – SFM added new section to 2013 CRC

Chapter 10 — Chimneys and Fireplaces

- **R1003.9.1 Chimney caps** (Masonry Fireplaces) – 2012 IRC adds new provisions that now requires a chimney cap and prescribes minimum criteria for installation.



- **R1003.9.2 Spark arrestors** (Masonry Fireplaces) – SFM carried over existing 2010 CRC amendments to 2013 CRC. *All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrestor.*

- **R1003.9.3 Rain caps** (Masonry Fireplaces) – 2012 IRC adds new provisions related to rain caps. Rain caps are not required, but when installed they must provide minimum clearance above the flue termination. The net free area under the rain cap shall not be less than four times the net free area of the outlet of the chimney flue.

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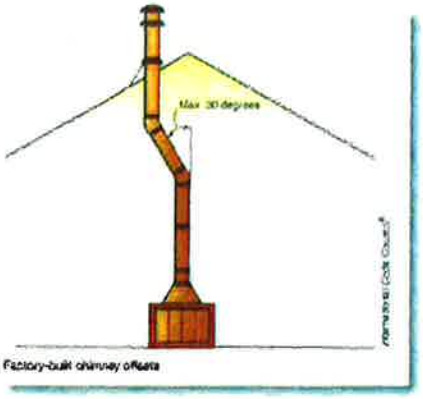
- **R1005.7 Factory-built chimney offsets** – Although the product manufacturers installation instructions typically contain limitations on maximum offsets from vertical, 2012 IRC adds new provision that no part of the chimney shall be at an angle of more than 30 degrees from vertical and shall not include more than four elbows. This language comes directly from UL 103 (Factory-Built Chimneys for Residential Type and Building Heating Appliances).



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ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN CLEMENTE, CALIFORNIA, AMENDING CHAPTERS 15.08, 15.12, 15.16, 15.20, 15.21, AND 15.22 OF TITLE 15 OF THE SAN CLEMENTE MUNICIPAL CODE ADOPTING BUILDING REGULATIONS

THE CITY COUNCIL OF THE CITY OF SAN CLEMENTE HEREBY ORDAINS AS FOLLOWS:

Section 1. Chapter 15.08 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.08 BUILDING CODE

Section 15.08.010 Building Code Adopted – Where filed.

For the purpose of prescribing regulations for erection, construction, enlargement, alteration, replacement, repair, improvement, removal, movement, conversion, demolition, use and occupancy, equipment, height, location, maintenance, and areas of every building or structure or any appurtenances connected or attached to such building or structure in the City, the following construction codes, subject to the modifications set forth in this Chapter, are hereby adopted: California Building Code (CBC), 2013 Edition, based on the 2012 International Building Code as published by the International Code Council, including

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Appendix I; California Administrative Code, 2013 Edition; California Energy Code, 2013 Edition; California Historical Building Code, 2013 Edition; California Existing Building Code, 2013 Edition; and California Referenced Standards Code, 2013 Edition. The provisions of these codes, as modified in this Chapter, shall constitute the building regulations of the City. A copy of these codes is on file for public examination in the City's Building Division office.

15.08.020 Division II of Chapter 1 amended — Administration.

Division II of Chapter 1of CBC is hereby amended as follows:

A. Subsection 101.1 is hereby amended to read in its entirety as follows:

101.1 Title. These regulations shall be known as the California Building Code of the State of California, hereinafter referred to as "this code."

B. Subsection 101.2 is hereby amended to read in its entirety as follows:

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the California Residential Code.

The provisions of these codes shall apply to and affect all of the territory of the City of San Clemente, 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, and except as exempted by these codes.

C. Subsection 101.4. is hereby amended to read in its entirety as follows:

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

D. A new Subsection 101.4.7 is hereby added to Section 101 to read in its entirety as follows:

101.4.7 Electrical. The provisions of the California Electrical Code shall apply to the installation, alteration, repair and replacement of electrical wiring, connections, fixtures and other devices and systems.

E. A new Subsection 101.4.8 is hereby added to Section 101 to read in its entirety as follows:

101.4.8 Green Code. The provisions of the California Green Building Standards Code shall apply to design and construction of buildings for sustainability.

F. Subsection 105.2 is hereby amended by deleting items 1 through 13 under the heading "Building" and replacing them with the following:

Building:

1. One-story detached accessory buildings used as tool and storage sheds, playhouses and similar uses and structures such as portable shade cloth structures, provided the floor area does not exceed 120 square feet (11 m^2). Such structures must comply with the setback and height requirements of the City Zoning Ordinance and the Fire Code.

2. Masonry or concrete fences not over 42 inches in height above lowest adjacent grade, and all other fences not over 6 feet (1,829 mm) in height above lowest adjacent grade and any fence located with the zoning front yard setback distance not over 42 inches high.

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3. Oil derricks.

4. Retaining walls that are not over 4 feet in height measured from the bottom of footing to the top of wall unless supporting a surcharge or impounding Class I, II or IIIA liquids.

5. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2:1.

6. Detached decks, platforms or similar structures not exceeding 200 square feet in area, walkways, sidewalks and driveways that are not more than 30 inches (762mm) above adjacent grade, and not over any basement or story below, and are not part of a required exit means of egress, and are not part of an accessible route.

7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work that does not involve electrical, mechanical or plumbing work.

8. Temporary motion picture, television and theater stage sets and scenery.

9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 18 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.

10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

11. Swings and other playground equipment accessory to detached one- and two-family dwellings.

12. Window awnings supported by an exterior wall that do not project more than 54 inches from the exterior wall and do not require additional support of Group R-3 and U occupancies.

13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches in height.

14. Radio and television antenna, and flagpoles not over twelve (12) feet in height measured from grade.

Unless otherwise exempted, separate plumbing, electrical and mechanical permits will be required for the above-exempted items.

G. Subsection 105.3.2 is hereby amended to read in its entirety as follows:

105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 360 days after the date of filing, unless such application has been pursued in good faith or permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated. The total period of application extensions granted shall not exceed an additional 18 months. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan check fee.

H. Subsection 105.5 is hereby amended to read in its entirety as follows:

105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work commenced.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required. The extension shall be requested in writing prior to the permit expiring and show justifiable cause demonstrating that circumstances beyond the control of the permittee have prevented action from being taken. Pursuant to this paragraph, the Building Official or his/her designee is authorized to grant, in writing, one extension of time, for a period not more than 180 days. The completion of

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construction shall not extend beyond the timeframes mandated in Section 105.8 of this code even with such extension.

Before such work can be recommenced after a permit expires, a new permit shall first be obtained, and a fee therefore shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after this one year time period, the permittee shall pay a new full permit fee.

I. A new Subsection 105.8 is hereby added to Section 105 to read in its entirety as follows:

105.8 Completion of construction. Notwithstanding subsection 105.5 above, all construction shall be completed by the owner, owner's agent, or the permittee and approved by the City within the following time frame:

a. New residential buildings construction . . . 24 months
b. Residential room additions and remodels . . . 12 months
c. Tenant improvements . . . 12 months
d. Pools/spas . . . 12 months
e. Patio covers and similar structures . . . 6 months
f. Fences and/or retaining walls . . 6 months
g. Water heaters, water softeners, and air conditioners . . . 6 months
h. All other minor alterations . . . 6 months

Upon written request of the owner or permittee, the Building Official and/or his/her designated representative may extend the period for completion of construction for a period not to exceed one hundred eighty (180) days. The written request must demonstrate that (1) due to circumstances beyond the owner's or permittee's control, construction could not be completed in the required construction period; (2) that reasonable progress has been made; (3) that the condition of the property presents no health or safety hazard; and (4) that the continued delay will not create any unreasonable visual or physical detriment to the neighborhood. Any extension beyond one hundred eighty (180) days must be approved by the City Manager.

The requirement of this subsection shall apply to all construction projects undertaken prior to the effective date

of this subsection except that the construction period set forth shall run from the effective date of' this subsection rather than from the date construction was commenced or a building permit was issued for the project.

J. A new Subsection 105.9 is hereby added to Section 105 to read in its entirety as follows.

105.9 Maintenance of property during construction. During construction, all property shall be maintained in a reasonably clean and well-kept manner. All lumber and building materials shall be neatly piled or stacked in a safe manner and stored in the rear yard of the residential property or inside the building construction perimeter, except that building materials may be stored in a front yard for a period not to exceed thirty (30) days. A waiver of this requirement may be obtained from the Building Official or his/her designated representative if the construction is screened from view from adjacent occupied or public property with fencing materials approved by city zoning and building regulations.

K. A new Subsection 107.2.6 is hereby added to Section 107 to read in its entirety as follows:

107.2.6 Soil report. A Soil report shall be submitted with all permit applications for new construction and additions. Soil Reports shall be prepared by a professional engineer licensed by the State to prepare such reports. The Building Official may waive this requirement if he/she finds that the scope of work applied for does not necessitate a soil report.

L. Subsection 107.3 is hereby amended to add a second paragraph that reads as follows:

When submittal documents are required by Section 107.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fees are separate fees from the permit fees specified in Section 109.2 and are in addition to the permit fees. Said plan review fee shall be as set forth in the City Council Fee Resolution.

M. Subsection 107.5 is hereby amended to add a second paragraph that reads as follows:

The approved plans, permit application, inspection card and other construction documents required by the Building Official shall be imaged after the final inspection and will be a permanent record in the City. The applicant shall pay the cost of imaging at the time of permit.

N. Subsection 109.2 is hereby amended by adding a sentence at the end to read as follows:

The fee for each permit shall be as set forth in the City Council Fee Resolution unless otherwise specified by the code.

O. Subsection 109.3 is hereby amended to add a second paragraph that reads as follows:

The Building Official shall make the determination of value or valuation under any provisions of this code. The valuation shall be determined by using rational methods established by the Building Official that reasonably establish the construction value or the contract price of the actual construction cost. The value of work to be used in computing the Building Permit and Building Plan Review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent equipment.

P. Subsection 109.4 is hereby amended to add a second paragraph that reads as follows:

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

Q. Subsection 109.6 is hereby amended to read in its entirety as follows:

109.6 Refunds. The building official is authorized to establish a refund policy. The building official may

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authorize refunding of any fee paid hereunder which was erroneously paid or collected as provided below.

The building official may authorize refunding of 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 review fee paid when an application for a permit for which a plan review has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of payment.

R. A new Subsection 109.7 is hereby added to Section 109 to read in its entirety as follows:

109.7 Deposit. The Building Official may require a deposit from the applicant for a certain project or work in order to secure the request of final inspection approvals from the applicant or the repairing of damaged City properties during the period of construction. The deposit money will be refunded to the applicant when the final inspections are approved or the damages are repaired to the satisfaction of the City. The deposit amount shall not be more than twice the permit fee.

S. A new Subsection 110.7 is hereby added to Section 110 to read in its entirety as follows:

110.7 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which an inspection is requested is not complete or when previous corrections are not corrected.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with requirements of this Code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site, or when the approved plans are not readily available to the inspector, or for failure to provide access on the date for which inspection is requested.

To obtain a reinspection, the applicant shall pay the reinspection fee as established by the City Council Fee Resolution. In instances where reinspection fees have been assessed, no additional inspection of work will be performed until the required reinspection fees have been paid.

15.08.025 Chapter 2 amended — Definitions.

Chapter 2 of CBC is hereby amended as follows:

A. The Definition of "High-rise structure" in Subsection 202 is hereby amended to read as follows:

HIGH-RISE STRUCTURE. Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 above the lowest floor level having building access (see Section 403), except buildings used as hospitals as defined in the Health and Safety Code Section 1250.

B. The Definition of "Swimming Pool" in Subsection 202 is hereby amended to read as follows:

SWIMMING POOL. Any structure intended for swimming, recreational bathing or wading that contains water over 18 inches deep. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools.

C. Subsection 202 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.

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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.

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.

15.08.030 Chapter 4 amended — Special Detailed Requirements Based on Use and Occupancy.

Chapter 4 of CBC is hereby amended as follows:

A. The title of Section 403 is hereby amended to read as follows:

SECTION 403
HIGH-RISE BUILDINGS AND GROUP I-2 OCCUPANCIES HAVING OCCUPIED FLOORS LOCATED MORE THAN 55 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS

B. The first paragraph of Subsection 403.1 is hereby amended to read as follows:

403.1 Applicability. New high-rise buildings and Group I-2 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 55 feet above the lowest level of fire department vehicle access shall comply with Sections 403.2 through 403.6. *(Balance of the subsection to remain unchanged)*

C. The first paragraph of Subsection 406.3.3 is hereby amended to read as follows:

406.3.3 Garages and carports. Carports shall be open on at least two sides. Garage and carport floor surfaces shall be of approved noncombustible material. Carports not open on at least two sides shall be considered a garage and

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shall comply with the provisions of this section for garages. *(Balance of the section to remain unchanged)*

D. Subsection 406.4.5 is hereby amended by deleting exception no. 1 and amending the second paragraph to read as follows:

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway with an approved oil separator or trap discharging to sewers in accordance with the California Plumbing Code.

E. Subsection 412.7 is hereby amended by adding Sections 412.7.6 through 412.7.6.13 as follows:

412.7.6. Emergency Helicopter Landing Facility. Emergency Helicopter Landing Facility (EHLF) shall be constructed as specified in Section 412.7.6.1 through 412.7.6.13.

412.7.6.1 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.

412.7.6.2 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.

412.7.6.3 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

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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.

412.7.6.4 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.

412.7.6.5 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.

412.7.6.6 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.

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

412.7.6.8 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 412.7.6.8.

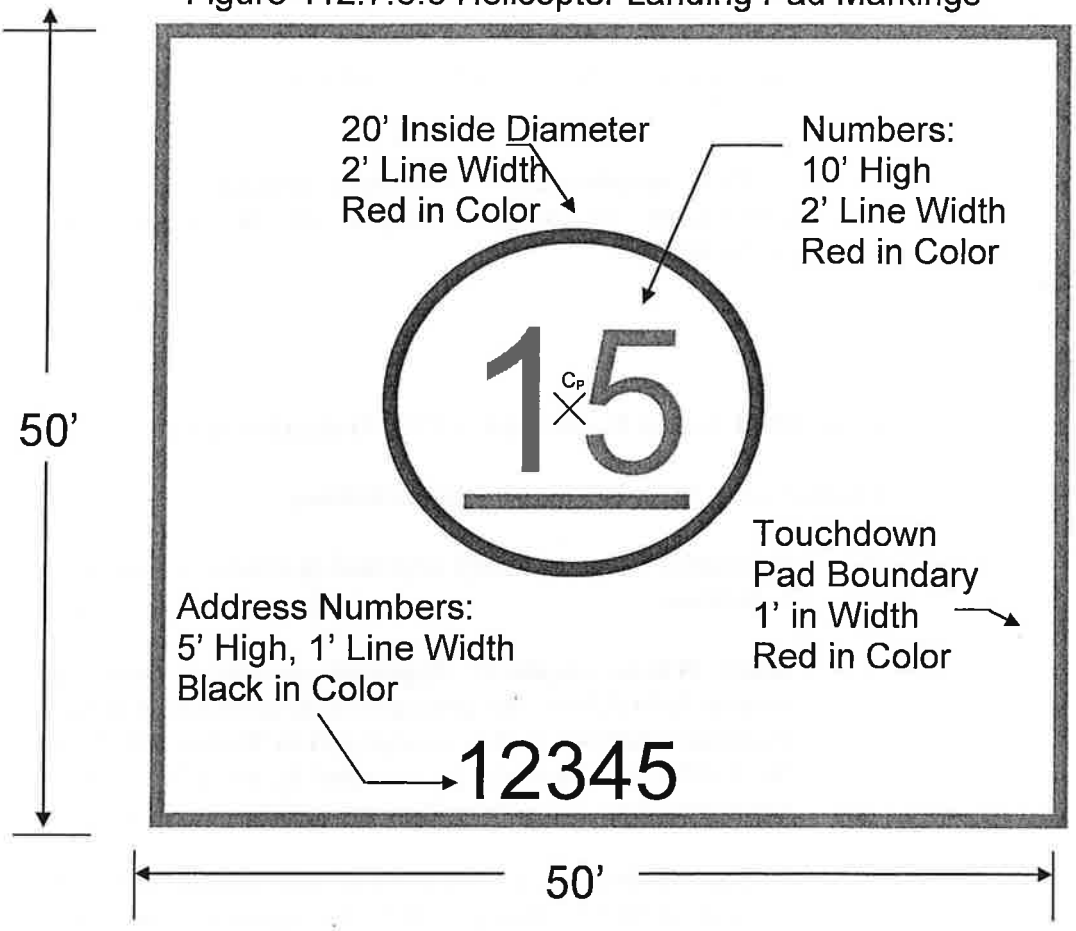
412.7.6.9 EHLF Exits. Two stairway exits shall be provided from the landing platform area to the roof surface. For landing areas less than 2,501 square feet in area, the second exit may be a fire escape or ladder leading to the roof surface below. The stairway from the landing facility platform to the floor below shall comply with Section 1009.7.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

412.7.6.10 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.

412.7.6.11 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 California Fire Code Section 906.

412.7.6.13 EHLF. Fueling, maintenance, repairs, or storage of helicopters shall not be permitted.

Figure 412.7.6.8 Helicopter Landing Pad Markings



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

15.08.035 Chapter 7A amended — Materials and Construction Methods for Exterior Wildfire Exposure.

Chapter 7A of CBC is hereby amended as follows:

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A. Subsection 710A.3.2 is hereby amended to read in its entirety as follows:

710A.3.2 Detached accessory structures within 50 feet of an applicable building shall comply with the requirements of this section.

B. Subsection 710A.4 is hereby amended to read in its entirety as follows:

710A.4 Requirements. Accessory structures shall be constructed of non-combustible or ignition-resistant materials.

15.08.040 Chapter 9 amended — Fire Protection Systems.

Chapter 9 of CBC is hereby amended as follows:

A. Subsection 903.2 is hereby amended to read in its entirety as follows:

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the locations described in this section and in Section 903.2 of the California Fire Code as amended by the City of San Clemente when one of the following conditions exists:

1. **New buildings**: In addition to the requirements of section 903.2.1 through 903.2.19, approved automatic sprinkler systems in new buildings and structures shall be provided as follows (Exception: Group R Detached one- two-family dwellings and townhouses as required by section 903.2.8):
   i) Throughout all Groups A, I, E, and H Occupancies
   ii) Throughout all Group B, F, M, and S Occupancies exceeding 1,000 square feet
   iii) Throughout all Group U-1 Occupancies exceeding 6,000 square feet

   For the purposes of this section, fire walls shall not define separate buildings.

2. **Alteration**: When the floor area of the Alteration within any two-year period exceeds 75% of area of the existing structure and the alteration includes structural modifications other than seismic upgrade.

3. **Addition**: Sprinkler protection shall be provided throughout the entire building when:

    1. Existing unsprinklered building less than 5,000 ft^2: where 20% or more is added and the gross floor areas exceeds 5,000 square feet.
    2. Existing unsprinklered building equal or greater than 5,000 ft^2: where more than 1,000 ft^2 is added.
    3. Fire sprinklers shall be provided in additions to an existing building that has fire sprinklers installed.

B. Subsection 903.2.8 is hereby amended to read in its entirety as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Subsection 903.3 of Section 903 of this code and Subsection 903.3 of Section 903 of the California Fire Code as amended by the City of San Clemente shall be provided throughout all buildings with a Group R fire area as follows:

1. All new Group R occupancies, including the attached garages
2. All existing Group R occupancies and U-1 garages when the total floor area is increase by 50% of the existing area over a 2-year period
3. All existing Group R occupancies and U-1 garages when the total area is increased by 750 square feet or more over a 2-year period
4. All existing Group R occupancies and U-1 garages when an additional story is added to the structure regardless of the area involved
5. An automatic sprinkler system shall be installed throughout any existing Group R Occupancy building when the floor area of the Alteration or Combination of an Addition and Alteration, within any two year period, is 50% or more of area of the existing structure and where the scope of the work exposes building framing and facilitates sprinkler installation and is such that the Building/Fire Code Official

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determines that the complexity of installing a sprinkler system would be similar as in a new building.

6. Any addition to existing building that has fire sprinklers installed.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor and not housing clients above the second floor.
2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with CBC Section 425.8.3.3.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

When not used in accordance with Section 504.2 or 506.3, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

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

C. A new Subsection 903.3.5.3 is hereby added to Section 903 to read in its entirety as follows:

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity

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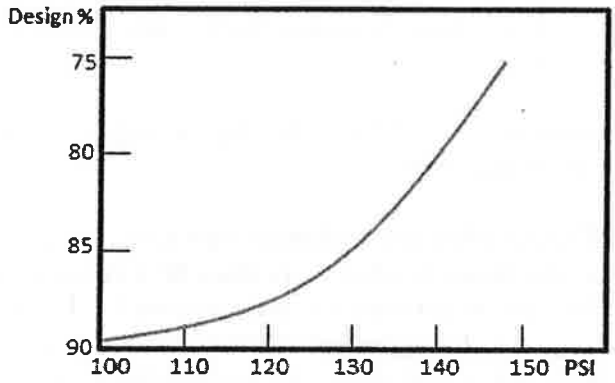
Exception: When static pressure exceeds 100 psi, and required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3

TABLE 903.3.5.3
Hydraulically Calculated Systems



D. Subsection 903.4 is hereby amended to read in its entirety as follows:

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

Exceptions:

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.

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5. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.

E. Subsection 905.4 is hereby amended by adding location no. 7 as follows:

7. The centerline of the 2.5 inches (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.

F. Subsection 907.2.13 is hereby amended to read in its entirety as follows:

907.2.13 High-rise buildings and Group I-2 occupancies having floors located more than 55 feet above the lowest level fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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 907.5.2.2

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 406.5 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.6 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. Subsection 907.3.1 is hereby amended to read in its entirety as follows:

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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.

H. Subsection 907.5.2.2 is hereby amended to read in its entirety as follows.

907.5.2.2 Emergency voice/alarm communication system. Emergency voice/alarm communication system required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow 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 fire safety and evacuation plans required by Section 404 of California Fire Code. In high-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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.

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

Exception: In Group I-2 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. Subsection 907.6.3.2 is hereby amended to read in its entirety as follows:

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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. Subsection 907.6.5 is hereby amended to read as follows:

907.6.5 Monitoring. Fire alarm systems required by this chapter or by the California Fire Code shall be monitored by an approved supervising station in accordance with NFPA 72, this section, and per Orange County Fire Authority Guideline "New and Existing Fire Alarm & Signaling Systems". *(Balance of the subsection to remain unchanged)*

15.08.050 Chapter 15 amended — Roof Assemblies and Rooftop Structures.

Chapter 15 of CBC is hereby amended as follows:

A. Subsection 1503.4 is hereby amended by adding a second paragraph to read as follows:

Water that accumulates on a roof shall be effectively drained and conveyed from the roof to a storm drain, street gutter, or other locations approved by the Building Official. Such water shall be conveyed through gutters, leaders,

associated piping or other non-erodible surface drainage devices as approved by the Building Official. For any minor or small roofs, the Building Official may exempt this requirement.

B. Table 1505.1 in Subsection 1505.1 is hereby amended to read as follows:

TABLE 1505.1[a]
MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION

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

a. Unless otherwise required in accordance with Chapter 7A

C. Subsections 1505.1.1, 1505.1.2, 1505.1.3 are hereby deleted and replaced with a new Subsection 1505.1.1 to read in its entirety as follows:

1505.1.1 Roof Coverings. The roof covering or roofing assembly on any new structure regulated by this code shall be Class A fire retardant roof minimum as classified in CBC Section 1505.2. Non-combustible roof covering may be applied in accordance with the manufacturer's requirements in lieu of a fire retardant roofing assembly. Wood roofing materials are prohibited unless pressure treated and approved for fire retardant of Class A minimum. For existing structure when ten percent (10%) or more of the total roof area is re-roofed within any one-year period, shall have a Class A fire retardant roof covering for entire roof area. For existing structure when less than ten percent (10%) of the total roof area is re-roofed within any one-year period, shall have a fire retardant roof covering class equal to or greater than the existing roof covering and not less than Class B.

15.08.060 Chapter 18 amended — Soils and Foundations.

Chapter 18 of CBC is hereby amended as follows:

A. Subsection 1807.1.6 is hereby amended to read in its entirety as follows:

1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be

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permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.

15.08.070 Chapter 31 amended — Special Construction.

Chapter 31 of CBC is hereby amended as follows:

A. The first sentence of Subsection 3109.3 is hereby amended to read as follows:

3109.3 Public swimming pools. Public swimming pools shall be completely enclosed by a fence at least 5 feet in height or a screen enclosure. *(Balance of the section to remain unchanged.)*

B. The first sentence of Subsection 3109.4.1 is hereby amended to read as follows:

3109.4.1 Barrier height and clearances. The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier that faces away from the swimming pool. *(Balance of the section to remain unchanged)*

C. Subsection 3109.4.4.1 is hereby amended by adding the following definition:

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

D. The first sentence of Subsection 3109.4.4.3 is hereby amended to read as follows:

3109.4.4.3 Enclosure; required characteristics. An enclosure shall have all of the following characteristics and shall comply with provisions contained in 3109.4:
(Balance of the section to remain unchanged)

E. A new Subsection 3109.7 is hereby added to Section 3109 to read as follows:

3109.7 Sound Attenuation. Filters, heating systems, and pumps installed to serve pool, spa, hot tub, waterfall or any body of water, shall be enclosed and soundproofed. An acoustical report prepared by a licensed or approved acoustical professional can be used to substitute for sound wall enclosures as long as the report demonstrates the compliance of the requirements specified in Chapter 8.48 of the San Clemente Municipal Code.

15.08.080 Chapter 34 amended — Existing Structures.

Chapter 34 of CBC is hereby amended as follows:

A. New Subsections 3410.2 and 3410.3 are hereby added to Section 3410 to read as follows:

3410.2 Requirements. It shall be unlawful for any person to move any house, building or structure of any kind or description, except fabricated structures approved by the Building Official, from any point outside of the City limits of the City, onto any property or lot within the City limits of the City of San Clemente. No building or structure shall be moved or relocated until such building or structure is approved by the Planning Commission under a Conditional Use Permit. A permit to relocate the building or structure, issued by the Building Official to the owner of the premises to which the particular building or structure is proposed to be moved, is also required.

3410.3 Relocation Permit Fee. Before any application for a Relocation Permit is accepted for filing, a fee as set forth in the City Council Fee Resolution shall be paid by the applicant to the City of San Clemente to cover City's cost for the investigation of the condition of the building to be moved and the inspection of the proposed new location. The application fee herein provided for shall be in addition to the building permit fee required by this code and any other fee or charge required by law or ordinance where a main building and building accessory thereto are to be moved.

15.08.090 Chapter 35 amended — Referenced Standards (NFPA 13, NFPA 13R, NFPA 13D, NFPA 14, NFPA 24).

The Referenced Standards in Chapter 35 of CBC are hereby amended as follows:

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B. **NFPA 13, 2013 Edition, Installation of Sprinkler Systems** is hereby amended as follows:

1. Section 6.8.3 is hereby revised to read in its entirety 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 FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

2. Section 8.3.3.1 is hereby revised to read in its entirety as follows:

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

a) Quick-response type as defined in 3.6.4.7.
b) Residential sprinklers in accordance with the requirements of 8.4.5.
c) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers.
d) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems.

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3. Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Waterflow Alarms. A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system, where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each unit. 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, whichever is greater. 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.

4. Section 11.1.1.2 is hereby added as follows:

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

5. Section 11.2.3.1.1.1 is hereby added as follows:

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

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

6. Section 23.2.1.1 is hereby revised to read in its entirety as follows:

23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

B. **NFPA 13R 2013 Edition Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height** is hereby amended as follows:

1. Section 6.16.1 is hereby revised to read in its entirety as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in the California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each dwelling unit. 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, whichever is greater. 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.

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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.

C. **NFPA 13D 2013 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

1. Section 7.1.2 is hereby revised to read in its entirety 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.

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

7.6 Alarms. Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location is subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces. 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, whichever is greater. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

1. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.

2. When smoke detectors specified under CBC Section 907.2.11 are used to sound an alarm upon waterflow switch activation.

3. Section 12.3.6 is hereby added as follows:

12.3.6 Stock of Spare Sprinklers.

4. Section 12.3.6.1 is hereby added as follows:

12.3.6.1 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.

5. Section 12.3.6.2 is hereby added as follows:

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

6. Section 12.3.6.3 is hereby added as follows:

12.3.6.3 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).

7. Section 12.3.6.4 is hereby added as follows:

12.3.6.4 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.

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

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

7.3.1.1 Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the

finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

E. **NFPA 24, 2013 Edition, Installation of Private Fire Service Mains and Their Appurtenances** is hereby amended as follows:

1. Section 6.2.1.1 is hereby added as follows:

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

2. Section 6.2.11 (5) is hereby deleted without replacement and (6) and (7) renumbered as follows:

   (5) Control Valves installed in a fire-rated room accessible from the exterior.
   (6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

3. Section 6.3.3 is hereby added as follows:

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

4. Section 10.1.6.3 is hereby added as follows:

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

   Exception: 304 or 316 Stainless Steel pipe and fittings

5. Section 10.3.6.2 is hereby revised to read in its entirety as follows:

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

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

6. Section 10.3.6.3 is hereby added as follows:

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

7. Section 10.6.3.1 is hereby revised to read in its entirety 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 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

8. Section 10.6.4 is hereby revised to read in its entirety as follows:

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

15.08.100 Construction of Off-Street Parking Lots.

A. Paving. All off-street parking lots shall be paved according to the City specifications, with an all-weather surface of asphalt or concrete paving.
B. Preparation of Specifications. The City Engineer shall prepare such specifications for use by the owner or builder of such off-street parking space.
C. Construction Permit Required. No off-street parking lot may be constructed without there being issued a permit

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therefor by the Building and Safety Superintendent of the City.

D. Application for Construction Permit. Application for such permit shall be accompanied by a plot plan showing the size of the proposed parking lot, method of ingress and egress, layout of stalls, bumper guard locations and such other pertinent facts as may be required by the Building and Safety Superintendent to determine whether such application meets the requirements and regulations of the City.

Section 2. Chapter 15.12 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.12 ELECTRICAL CODE

15.12.010 Electrical Code Adopted – Where filed.

The City Council of the City of San Clemente hereby adopts by reference California Code of Regulations Title 24, Part 3, known and designated as the California Electrical Code, 2013 Edition based on the National Electrical Code (NEC), 2011 Edition, as published by the National Fire Protection Association with the modifications set forth below for the purpose of prescribing regulations for the installation, arrangement, alteration, repairing, replacement, remodeling, or use and other operation of electrical wiring, connections, fixtures and other electrical appliances on premises within the City. The provisions of this code shall constitute the electrical code regulations of the City. The California Electrical Code is on file for public examination in the City's Building Division office.

15.12.020 Amendments, additions and deletions.

A. A new Section 90.0 of Article 90 of the California Electrical Code is hereby added to read in its entirety as follows:

90.0 Administration and Fees.
Administrative provisions contained in Division II of Chapter 1 of the California Building Code and California Residential Code, as amended by the City of San Clemente,

shall apply to the California Electrical Code, as adopted and amended by the City of San Clemente.

C. A new Subdivision (L) is hereby added to Section 300.5 of Article 300 of Chapter 3 of the California Electrical Code to read in its entirety as follows:

(L) Underground utilities required. Overhead wiring shall not be installed outside on private property. The building official, as a condition precedent to the issuance of a building permit, shall require all utility services located within any lot to be installed underground if:

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

(b) The remodeling, alteration, or addition to the existing main building involves more than 50% of the building floor area; or

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

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

The owner or developer of the property shall be responsible for complying with the requirements of this section and shall provide all the necessary facilities on the property to receive such services from the supplying utilities. If the building official determines that application of this requirement causes extraordinary hardship, the building official may modify or delay the imposition of the undergrounding requirement upon approval of property owner's application therefore. If the building official determines to delay the installation of the requirement, he may require a recorded agreement guaranteeing the future performance of the work, together with adequate performance security in the form of a cash, surety bond, or letter of credit.

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

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C. Subdivision (B) of Section 310.106 of Article 310 of Chapter 3 of the California Electrical Code is hereby amended to read in its entirety as follows:

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

Copper wire shall be the material used when plans or installations require No. 6 or smaller wiring.

Aluminum wire may only be permitted on an individual case-by-case basis by the Building Official. Any such approval shall be based upon findings showing that all of the following conditions exist:

(a) Wire size shall not be less than No. 6
(b) Continuous inspection of each connection by a qualified inspector approved by the Building Official in advance.
(c) Installation of antioxide compound/material at each connection.
(d) Use of electrical equipment listed for aluminum wiring.
(e) The installer shall notify the building owner in writing that aluminum wiring was used. The notification shall specify exact locations of wire and its purposes. Certificate of Occupancy will not be issued until a copy of the notification letter is submitted to the Building Official for a review and approval.

Solid aluminum conductors 8, 10, and 12 AWG shall be made of an AA-8000 series electrical grade aluminum alloy conductor material. Stranded aluminum conductors 8 AWG through 1000 kcmil marked as Type RHH, RHW, XHHW, THW, THHW, THWN, THHN, service-entrance Type SE Style U and SE Style R shall be made of an AA-8000 series electrical grade aluminum alloy conductor material

D. Table No. 310.106(A) of Section 310.106 of Article 310 of Chapter 3 of the California Electrical Code is hereby amended by adding a note at the bottom to read as follows:

****Note**. Use of aluminum conductors requires prior approval from Building Official. See Section 310.106(B), Conductor Material.

Section 3. Chapter 15.16 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.16 MECHANICAL CODE

15.16.010 Mechanical Code Adopted – Where filed.

The City Council of the City of San Clemente hereby adopts by reference California Code of Regulations Title 24, Part 4, known and designated as the California Mechanical Code, 2013 Edition based on the 2012 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials with the modifications set forth below for the purpose of prescribing regulations for the design, construction, installation, quality of materials, location, operation and maintenance or use of heating, ventilating, cooling, refrigeration systems, incinerators and other heat-producing appliances in the City including Appendices B, C, D and F. The provisions of this code shall constitute the mechanical code regulations of the City. The California Mechanical Code is on file for public examination in the City's Building Division office.

15.16.020 Amendments, additions and deletions.

A. Sections 113.4 and 114.0 of Division II of Chapter 1 of the California Mechanical Code are hereby deleted and replaced by the following:

114.0 Administration and Fees. Administrative and fee provisions contained in Division II of Chapter 1 of the California Building Code and California Residential Code, as amended by the City of San Clemente, shall apply to the California Mechanical Code, as adopted and amended by the City of San Clemente.

B. The first paragraph of Subsection 504.2 of the Section 504 of the California Mechanical Code is hereby amended to read as follows:

504.2 Domestic Range Hoods and Vents. Kitchen range hoods shall be installed for cooking facilities with an approved forced-draft system of ventilation vented to the outside of the building. Ducts used for domestic kitchen

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range ventilation shall be of metal, or other approved material, and shall have smooth interior surfaces. Ducts for domestic range hoods shall only serve cooking appliances. *(Balance of the subsection to remain unchanged.)*

C. Subsection 1308.5 of Section 1308 of California Mechanical Code is hereby amended by adding the following sentences to the end of the paragraph:

Approved PE pipe and fittings shall be used in exterior buried gas piping systems. Ferrous gas piping is not permitted to be installed underground unless a soils analysis is provided to show that soil conditions will not be damaging to the piping material.

Section 4. Chapter 15.20 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.20 PLUMBING CODE

15.20.010 Plumbing Code Adopted – Where filed.

The City Council of the City of San Clemente hereby adopts by reference California Code of Regulations Title 24, Part 5, known and designated as the California Plumbing Code, 2013 Edition based on the 2012 Uniform Plumbing Code as published by the International Association of Plumbing and Mechanical Officials with the modifications set forth below for the purpose of prescribing regulations for the design, quality of materials, erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of plumbing systems in the City including Appendices A, B, C, D, H, and I. The provisions of this code shall constitute the plumbing code regulations of the City. The California Plumbing Code is on file for public examination in the City's Building Division office.

15.20.020 Amendments, additions and deletion.

A. Sections 103.3 and 103.4 of Division II of Chapter 1 of the California Plumbing Code are hereby deleted and replaced by the following:

103.3 Administration and Fees. Administrative provisions contained in Division II of Chapter 1 of the California Building Code and California Residential Code, as amended by the City of San Clemente, shall apply to the California Plumbing Code, adopted and amended by the City of San Clemente.

B. Subsection 604.1 of Section 604.0 of the California Plumbing Code is hereby amended by adding a sentence to end of the third paragraph to read as follows:

Ferrous materials are prohibited for water pipe and fittings when installed in the ground unless a soils analysis is provided to show that soil conditions will not be damaging to the piping material. *(Balance of the section to remain unchanged)*

C. Subsection 604.2 of Section 604.0 of the California Plumbing Code is hereby amended to read in its entirety as follows:

604.2 Copper tube for water piping shall have a weight of not less than Type K.

Exception. Type L copper tubing may be used for water piping when piping is underground and not within the footprint of the building foundation and Type M copper tubing may be used for water piping when piping is aboveground in, or on, a building.

D. Item no. (2) in Subsection 609.3 of Section 609.0 of the California Plumbing Code is hereby amended to read in its entirety as follows:

(2) Copper water piping installed under concrete floor slabs within a building or structure shall be copper tube Type "K" and shall be installed without joints where possible. Where joints are permitted, they shall be brazed and fitting shall be wrought copper. Such copper tubing shall be placed in a sand bed a minimum of three inches (3") in depth, and properly protected penetrates concrete and similar materials. *(Balance of the section to remain unchanged)*

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E. Subsection 610.8 of Section 610.0 of the California Plumbing Code is hereby amended by deleting the last paragraph and replacing it with the following:

No building supply pipe shall be less than one inch (1") in diameter unless a design or calculations are submitted and approved by Administrative Authority. Each main building shall have a minimum of two three-quarter-inch (3/4") hose bibs; one located readily accessible to the front yard and one to the back yard.

F. A new item no. (7) is hereby added to Section 701.1 of the California Plumbing Code to read as follows:

(7) Cast iron shall not be used for drainage and waste piping when installed in the ground unless a soils analysis is provided to show that soil conditions will not be damaging to the piping material.

G. Subsection 1208.5 of Section 1208 of California Plumbing Code is hereby amended by adding the following sentences to the end of the paragraph:

Approved PE pipe and fittings shall be used in exterior buried gas piping systems. Ferrous gas piping is not permitted to be installed underground unless a soils analysis is provided to show that soil conditions will not be damaging to the piping material.

Section 5. Chapter 15.21 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.21 GREEN BUILDING STANDARDS CODE

15.21.010 Green Building Standards Code Adopted – Where filed.

For the purpose of prescribing regulations for the planning, design, operation, construction, use and occupancy of newly constructed buildings and structures in the City to reduce the negative environmental impacts, subject to the modifications set forth in this Chapter, the City Council of the City of San Clemente hereby adopts by reference California Code of Regulations Title 24, Part

11, known and designated as the California Green Building Standards Code, 2013 Edition (CGBSC)), as published by the International Code Council. A copy of the California Green Building Standards Code is on file for public examination in the City's Building Division office.

15.21.020 Amendments, additions and deletions.

A. Section 202 of the CGBSC is hereby amended by adding 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. Subsection 4.304.1 of Section 4.304 of the CGBSC is amended to read in its entirety as follows:

4.304.1 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 of communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Section 6. Chapter 15.22 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 15.22 RESIDENTIAL CODE

15.22.010 Residential Code Adopted – Where filed.
15.22.020 Division II of Chapter 1 amended — Administration.
15.22.025 Chapter 2 amended — Definitions.
15.22.030 Chapter 3 amended — Building Planning.
15.22.040 Chapter 4 amended — Foundations.
15.22.050 Chapter 6 amended — Wall Construction.
15.22.060 Chapter 9 amended — Roof Assemblies.
15.22.070 Chapter 44 amended — Referenced Standards (NFPA 13, NFPA 13R, NFPA 13D).

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15.22.010 Residential Code Adopted – Where filed.

For the purpose of prescribing regulations for erection, construction, enlargement, alteration, replacement, repair, improvement, removal, movement, conversion, demolition, use and occupancy, equipment, height, location, maintenance, and areas of detached one–and two-family residential dwellings, townhomes and structures accessory thereto in the City, subject to the modifications set forth in this Chapter, the City Council of the City of San Clemente hereby adopts by reference California Code of Regulations Title 24, Part 2.5, known and designated as the California Residential Code (CRC), 2013 Edition, based on the 2012 International Residential Code as published by the International Code Council including Appendix H. A copy of this code is on file for public examination in the City's Building Division office.

15.22.020 Division II of Chapter 1 amended — Administration.

Division II of Chapter 1 of CRC is hereby amended as follows:

A. Subsection R101.1 is hereby amended to read in its entirety as follows:

R101.1 Title. These regulations shall be known as the California Residential Code, and may be cited as such and will be referred to herein as "this code".

B. Subsection R101.2 is hereby amended by adding a second paragraph to read as follows:

The provisions of this code shall apply to and affect all of the territory of the City of San Clemente, 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, and except as exempted by these codes.

C. Subsection R105.2 is hereby amended by deleting items 1 through 10 under the heading "Building" and replacing them with the following:

Building:

1. One-story detached accessory buildings used as tool and storage sheds, playhouses and similar uses and structures such as portable shade cloth structures, provided the floor area does not exceed 120 square feet (11 m^2). Such structures must comply with the setback and height requirements of the City Zoning Ordinance and the Fire Code.

2. Masonry or concrete fences not over 42 inches in height above lowest adjacent grade, and all other fences not over 6 feet (1,829 mm) in height above lowest adjacent grade and any fence located with the zoning front yard setback distance not over 42 inches high.

3. Retaining walls that are not over 4 feet in height measured from the bottom of footing to the top of wall unless supporting a surcharge or impounding Class I, II or IIIA liquids.

4. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2:1.

5. Sidewalks and driveways.

6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work that does not involve electrical, mechanical or plumbing work.

7. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 18 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.

8. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.

9. Swings and other playground equipment accessory to detached one- and two-family dwellings.

10. Window awnings supported by an exterior wall that do not project more than 54 inches from the exterior wall and do not require additional support of Group R-3 and U occupancies.

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11. Detached decks, platforms or similar structures not exceeding 200 square feet in area, walkways that are not more than 30 inches (762mm) above adjacent grade, and not over any basement or story below and do not serve the exit door required by Section R311.4.

12. Non-fixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches in height.

13. Radio and television antenna, and flagpoles not over twelve (12) feet in height measured from grade.

Unless otherwise exempted, separate plumbing, electrical and mechanical permits will be required for the above-exempted items.

D. Subsection R105.3.2 is hereby amended to read in its entirety as follows:

R105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 360 days after the date of filing, unless such application has been pursued in good faith or permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated. The total period of application extensions granted shall not exceed an additional 18 months. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan check fee.

E. Subsection R105.5 is hereby amended to read in its entirety as follows:

R105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work commenced.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to

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commence work within the time required. The extension shall be requested in writing prior to the permit expiring and show justifiable cause demonstrating that circumstances beyond the control of the permittee have prevented action from being taken. Pursuant to this paragraph, the Building Official or his/her designee is authorized to grant, in writing, one extension of time, for a period not more than 180 days. The completion of construction shall not extend beyond the timeframes mandated in Section R105.10 of this code even with such extension.

Before such work can be recommenced after a permit expires, a new permit shall first be obtained, and a fee therefore shall be one half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after this one year time period, the permittee shall pay a new full permit fee.

F. A new Subsection R105.10 is hereby added to Section R105 to read in its entirety as follows.

R105.10 Completion of construction. Notwithstanding subsection R105.5 above, all construction shall be completed by the owner, owner's agent, or the permittee and approved by the City within the following time frame:

a. New residential buildings construction . . . 24 months
b. Residential room additions and remodels . . . 12 months
c. Pools/spas . . . 12 months
d. Patio covers and similar structures . . . 6 months
e. Fences and/or retaining walls . . 6 months
f. Water heaters, water softeners, and air conditioners . . . 6 months
g. All other minor alterations . . . 6 months

Upon written request of the owner or permittee, the Building Official and/or his/her designated representative may extend the period for completion of construction for a period not to exceed one hundred eighty (180) days. The written request must demonstrate that (1) due to circumstances beyond the owner's or permittee's control, construction could not be completed in the required construction period; (2) that reasonable progress has been made; (3) that the condition of the property presents no

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health or safety hazard; and (4) that the continued delay will not create any unreasonable visual or physical detriment to the neighborhood. Any extension beyond one hundred eighty (180) days must be approved by the City Manager.

The requirement of this subsection shall apply to all construction projects undertaken prior to the effective date of this subsection except that the construction period set forth shall run from the effective date of' this subsection rather than from the date construction was commenced or a building permit was issued for the project.

G. A new Subsection R105.11 is hereby added to Section R105 to read in its entirety as follows.

R105.11 Maintenance of property during construction. During construction, all property shall be maintained in a reasonably clean and well-kept manner. All lumber and building materials shall be neatly piled or stacked in a safe manner and stored in the rear yard of the residential property or inside the building construction perimeter, except that building materials may be stored in a front yard for a period not to exceed thirty (30) days. A waiver of this requirement may be obtained from the Building Official or his/her designated representative if the construction is screened from view from adjacent occupied or public property with fencing materials approved by city zoning and building regulations.

H. A new Subsection R106.1.4 is hereby added to Section R106 to read in its entirety as follows:

R106.1.4 Soil report. A Soil report shall be submitted with all permit applications for new construction and additions. Soil Reports shall be prepared by a professional engineer licensed by the State to prepare such reports. The Building Official may waive this requirement if he/she finds that the scope of work applied for does not necessitate a soil report.

I. Subsection R106.3 is hereby amended to add a second paragraph that reads as follows:

When submittal documents are required by Section R106.1, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fees

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are separate fees from the permit fees specified in Section R108 and are in addition to the permit fees. Said plan review fee shall be as set forth in the City Council Fee Resolution.

J. Subsection R106.5 is hereby amended to add a second paragraph that reads as follows:

The approved plans, permit application, inspection card and other construction documents required by the Building Official shall be imaged after the final inspection and will be a permanent record in the City. The applicant shall pay the cost of imaging at the time of permit.

K. Subsection R108.2 is hereby amended by adding a sentence at the end to read as follows:

The fee for each permit shall be as set forth in the City Council Fee Resolution unless otherwise specified by the code.

L. Subsection R108.3 is hereby amended to add a second paragraph that reads as follows:

The Building Official shall make the determination of value or valuation under any provisions of this code. The valuation shall be determined by using rational methods established by the Building Official that reasonably establish the construction value or the contract price of the actual construction cost. The value of work to be used in computing the Building Permit and Building Plan Review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent equipment.

M. Subsection R108.5 is hereby amended to read in its entirety as follows:

R108.5 Refunds. The building official is authorized to establish a refund policy. The building official may authorize refunding of any fee paid hereunder which was erroneously paid or collected as provided below.

The building official may authorize refunding of 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 review fee paid when an application for a permit for which a plan review has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of payment.

N. Subsection R108.6 is hereby amended to add a second paragraph that reads as follows:

An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

O. A new Subsection R108.7 is hereby added to Section R108 to read in its entirety as follows:

R108.7 Deposit. The Building Official may require a deposit from the applicant for a certain project or work in order to secure the request of final inspection approvals from the applicant or the repairing of damaged City properties during the period of construction. The deposit money will be refunded to the applicant when the final inspections are approved or the damages are repaired to the satisfaction of the City. The deposit amount shall not be more than twice the permit fee.

P. A new Subsection R109.5 is hereby added to Section R109 to read in its entirety as follows:

R109.5 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which an inspection is requested is not complete or when previous corrections are not corrected.

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This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with requirements of this Code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise made available on the work site, or when the approved plans are not readily available to the inspector, or for failure to provide access on the date for which inspection is requested.

To obtain a reinspection, the applicant shall pay the reinspection fee as established by the City Council Fee Resolution. In instances where reinspection fees have been assessed, no additional inspection of work will be performed until the required reinspection fees have been paid.

15.22.025 Chapter 2 amended — Definitions.

Chapter 2 of CRC is hereby amended as follows:

A. Subsection R202 is hereby amended by adding the following definition:
HAZARDOUS FIRE AREA. Includes all areas identified within California Fire Code Section 4906.2 and other areas as determined by the Fire Code Official as presenting a fire hazard due to the presence of combustible vegetation, or the proximity of the property to an area that contains combustible vegetation.

15.22.030 Chapter 3 amended — Building Planning.

Chapter 3 of CRC is hereby amended as follows:

A. Table R301.2(1) in Section R301 is hereby amended to read in its entirety as follows:

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

GROUND SNOW LOAD	WIND DESIGN Speed [d] (mph)	WIND DESIGN Topographic effects	SEISMIC DESIGN CATEGORY [f]	SUBJECT TO DAMAGE FROM Weathering [a]	SUBJECT TO DAMAGE FROM Frost line Depth [b]	SUBJECT TO DAMAGE FROM Termite [c]	WINTER DESIGN TEMP [e]	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARDS [g]	AIR FREEZING INDEX [i]	MEAN ANNUAL TEMP [j]
Zero	85	No	D_1 or D_2	Negligible	12"	Very Heavy	43	No	Footnote "g" Below	0	60

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.

c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.

d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R30l.2(4)].Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.

e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.

f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.

g. Flood Hazard Maps
FEMA - National Flood Insurance Program (NFIP)

Community Name	Community Number	FIRM Panel Number	Initial NFIP Map Date	Initial FIRM Date	Most Recent FIRM Panel
San Clemente	060230	06059C0507J	06 / 14 / 1974	12 / 04 / 1979	12 / 03 / 2009
		06059C0508J			
		06059C0509J			
		06059C0517J			
		06059C0526J			
		06059C0528J			
		06059C0536J			
		06059C0538J			

FEMA – Federal Emergency Management Agency
NFIP – National Flood Insurance Program
FIRM – Flood Insurance Rate Map
Also see – San Clemente Municipal Code Chapter 15.76 – Flood Damage Prevention

i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the l00-year (99%) value on the National Climatic Data Center data table "Air Freezing Index- USA Method (Base 32°)" at www.ncdc.noaa.gov/fpsf.htrnl.

j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.

B. A new Subsection R301.9 is hereby added to Section R301 to read in its entirety as follows:

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R301.9 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.

C. A new Subsection R301.10 is hereby added to Section R301 to read in its entirety as follows:

R301.10 Fuel Modification Requirements for New Construction. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of OCFA Vegetation Management Guidelines currently in use at the time.

D. Table R302.1(2) in Section R302 is hereby amended by deleting footnote "a" *(balance of the Table to remain unchanged).*

E. Subsection R313.1 is hereby amended to read in its entirety as follows:

R313.1 Townhouse automatic fire sprinklers systems. An automatic residential fire sprinkler system installed in Townhouses as follows:

New buildings: An automatic sprinkler system shall be installed throughout all new townhouse buildings, including the attached garages.

Existing buildings: An automatic sprinkler system shall be installed throughout existing buildings, including the attached garages, when one of the following conditions exists:

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1. All existing Group R occupancies and U-1 garages when the total floor area is increase by 50% of the existing area over a 2-year period
2. All existing Group R occupancies and U-1 garages when the total area is increased by 750 square feet or more over a 2-year period
3. All existing Group R occupancies and U-1 garages when an additional story is added to the structure regardless of the area involved
4. An automatic sprinkler system shall be installed throughout any existing Group R Occupancy building when the floor area of the Alteration or Combination of an Addition and Alteration, within any two year period, is 50% or more of area of the existing structure and where the scope of the work exposes building framing and facilitates sprinkler installation and is such that the Building/Fire Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.
5. Any addition to existing building that has fire sprinklers installed.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor and not housing clients above the second floor.
2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with CBC Section 425.8.3.3.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

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F. Subsection R313.2 is hereby amended to read in its entirety as follows:

R313.2 One- and two-family dwellings automatic fire sprinklers systems. An automatic residential fire sprinkler system installed in one- and two-family dwellings as follows:

New buildings: An automatic sprinkler system shall be installed throughout all new one- and two-family dwellings, including the attached garages.

Existing buildings: An automatic sprinkler system shall be installed throughout existing buildings, including the attached garages, when one of the following conditions exists:

1. All existing Group R occupancies and U-1 garages when the total floor area is increase by 50% of the existing area over a 2-year period
2. All existing Group R occupancies and U-1 garages when the total area is increased by 750 square feet or more over a 2-year period
3. All existing Group R occupancies and U-1 garages when an additional story is added to the structure regardless of the area involved
4. An automatic sprinkler system shall be installed throughout any existing Group R Occupancy building when the floor area of the Alteration or Combination of an Addition and Alteration, within any two year period, is 50% or more of area of the existing structure and where the scope of the work exposes building framing and facilitates sprinkler installation and is such that the Building/Fire Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.
5. Any addition to existing building that has fire sprinklers installed.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor and not housing clients above the second floor.

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2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with CBC Section 425.8.3.3.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

G. The first paragraph of subsection R313.3.6.2.2 is hereby deleted and replaced to read as follows:

R313.3.6.2.2 Calculation procedure. Determination of the required size for water distribution piping shall be in accordance with the following procedure and California Fire Code Section 903.3.5.3.

H. Subsection R319.1 is hereby amended to read in its entirety as follows:

R319.1 Site Address. 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. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. 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). Where access is by means of 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. Address numbers shall be maintained.

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I. Subsection R322.1 is hereby amended to read as follows:

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with the provisions contained in this section and in accordance with Chapter 15.76 of the San Clemente Municipal Code.

Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24 and in accordance with Chapter 15.76 of the San Clemente Municipal Code.

J. A new Subsection R327.1.6 is hereby added to read in its entirety as follows:

R327.1.6 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.

   2.1 The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.

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 approval from the fire code official.

   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.

15.22.040 Chapter 4 amended — Foundations.

Chapter 4 of CRC is hereby amended as follows:

A. Subsection R403.1.3 is hereby amended by deleting the exception *(balance of subsection to remain unchanged)*.

B. Subsection R405.1 is hereby amended by deleting the exception *(balance of subsection to remain unchanged)*.

15.22.050 Chapter 6 amended — Wall Construction.

Chapter 6 of CRC is hereby amended as follows:

A. Table R602.10.3(3) is amended to read as follows:

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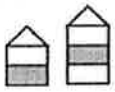
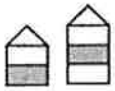
TABLE R602.10.3(3)
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

• SOIL CLASS D[b] • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE[a]				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB[c]	Method GB[c]	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB[c,d]	Method WSP	Methods CS-WSP, CS-G
C (townhouses only)		10	2.5	2.5	2.5	1.6	1.4
		20	5.0	5.0	5.0	3.2	2.7
		30	7.5	7.5	7.5	4.8	4.1
		40	10.0	10.0	10.0	6.4	5.4
		50	12.5	12.5	12.5	8.0	6.8
		10	NP	4.5	4.5	3.0	2.6
		20	NP	9.0	9.0	6.0	5.1
		30	NP	13.5	13.5	9.0	7.7
		40	NP	18.0	18.0	12.0	10.2
		50	NP	22.5	22.5	15.0	12.8
		10	NP	6.0	6.0	4.5	3.8
		20	NP	12.0	12.0	9.0	7.7
		30	NP	18.0	18.0	13.5	11.5
		40	NP	24.0	24.0	18.0	15.3
		50	NP	30.0	30.0	22.5	19.1
D_0		10	NP	~~2.8~~ 5.6	~~2.8~~ 5.6	1.8	1.6
		20	NP	~~5.5~~ 11.0	~~5.5~~ 11.0	3.6	3.1
		30	NP	~~8.3~~ 16.6	~~8.3~~ 16.6	5.4	4.6
		40	NP	~~11.0~~ 22.0	~~11.0~~ 22.0	7.2	6.1
		50	NP	~~13.8~~ 27.6	~~13.8~~ 27.6	9.0	7.7
		10	NP	~~5.3~~ NP	~~5.3~~ NP	3.8	3.2
		20	NP	~~10.5~~ NP	~~10.5~~ NP	7.5	6.4
		30	NP	~~15.8~~ NP	~~15.8~~ NP	11.3	9.6
		40	NP	~~21.0~~ NP	~~21.0~~ NP	15.0	12.8
		50	NP	~~26.3~~ NP	~~26.3~~ NP	18.8	16.0
		10	NP	~~7.3~~ NP	~~7.3~~ NP	5.3	4.5
		20	NP	~~14.5~~ NP	~~14.5~~ NP	10.5	9.0
		30	NP	~~21.8~~ NP	~~21.8~~ NP	15.8	13.4
		40	NP	~~29.0~~ NP	~~29.0~~ NP	21.0	17.9
		50	NP	~~36.3~~ NP	~~36.3~~ NP	26.3	22.3

(continued)

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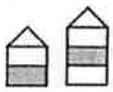
TABLE R602.10.3(3)—continued
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

• SOIL CLASS D[b] • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE[a]				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB[c]	Method GB[e]	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB[d,e]	Method WSP	Methods CS-WSP, CS-G
D_1		10	NP	~~3.0~~ 6.0	~~3.0~~ 6.0	2.0	1.7
		20	NP	~~6.0~~ 12.0	~~6.0~~ 12.0	4.0	3.4
		30	NP	~~9.0~~ 18.0	~~9.0~~ 18.0	6.0	5.1
		40	NP	~~12.0~~ 24.0	~~12.0~~ 24.0	8.0	6.8
		50	NP	~~15.0~~ 30.0	~~15.0~~ 30.0	10.0	8.5
		10	NP	~~6.0~~ NP	~~6.0~~ NP	4.5	3.8
		20	NP	~~12.0~~ NP	~~12.0~~ NP	9.0	7.7
		30	NP	~~18.0~~ NP	~~18.0~~ NP	13.5	11.5
		40	NP	~~24.0~~ NP	~~24.0~~ NP	18.0	15.3
		50	NP	~~30.0~~ NP	~~30.0~~ NP	22.5	19.1
		10	NP	~~8.5~~ NP	~~8.5~~ NP	6.0	5.1
		20	NP	~~17.0~~ NP	~~17.0~~ NP	12.0	10.2
		30	NP	~~25.5~~ NP	~~25.5~~ NP	18.0	15.3
		40	NP	~~34.0~~ NP	~~34.0~~ NP	24.0	20.4
		50	NP	~~42.5~~ NP	~~42.5~~ NP	30.0	25.5
D_2		10	NP	~~4.0~~ 8.0	~~4.0~~ 8.0	2.5	2.1
		20	NP	~~8.0~~ 16.0	~~8.0~~ 16.0	5.0	4.3
		30	NP	~~12.0~~ 24.0	~~12.0~~ 24.0	7.5	6.4
		40	NP	~~16.0~~ 32.0	~~16.0~~ 32.0	10.0	8.5
		50	NP	~~20.0~~ 40.0	~~20.0~~ 40.0	12.5	10.6
		10	NP	~~7.5~~ NP	~~7.5~~ NP	5.5	4.7
		20	NP	~~15.0~~ NP	~~15.0~~ NP	11.0	9.4
		30	NP	~~22.5~~ NP	~~22.5~~ NP	16.5	14.0
		40	NP	~~30.0~~ NP	~~30.0~~ NP	22.0	18.7
		50	NP	~~37.5~~ NP	~~37.5~~ NP	27.5	23.4
		10	NP	NP	NP	NP	NP
		20	NP	NP	NP	NP	NP
		30	NP	NP	NP	NP	NP
		40	NP	NP	NP	NP	NP
		50	NP	NP	NP	NP	NP
	Cripple wall below one- or two-story dwelling	10	NP	NP	NP	7.5	6.4
		20	NP	NP	NP	15.0	12.8
		30	NP	NP	NP	22.5	19.1
		40	NP	NP	NP	30.0	25.5
		50	NP	NP	NP	37.5	31.9

For SI: 1 inch = 25.4 mm. 1 foot = 305 mm. 1 pound per square foot = 0.0479 kPa.

a. Linear interpolation shall be permitted.

b. Wall bracing lengths are based on a soil site class "D_2." Interpolation of bracing length between the S_{ds} values associated with the Seismic Design Categories shall be permitted when a site-specific S_{ds} value is determined in accordance with Section 1613.3 of the *International Building Code*.

c. Method LIB shall have gypsum board fastened to at least one side with nails or screws per Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches.

d. Method CS-SFB applies in SDC C only.

e. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D0, D1 or D2. Methods DWB, SFB, PBS, and HPS are not premitted in SDC D0, D1, or D2.

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15.22.060 Chapter 9 amended — Roof Assemblies.

Chapter 9 of CRC is hereby amended as follows:

A. First paragraph of subsection R902.1 is amended to read in its entirety 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 and/or B roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108. *(balance of subsection to remain unchanged).*

B. Subsections R902.1.1, R902.1.2, R902.1.3 are hereby deleted and replaced with a new Subsection R902.1.1 to read in its entirety as follows:

R902.1.1 Roof Coverings. The roof covering or roofing assembly on any new structure regulated by this code shall be Class A fire retardant roof minimum as classified in CBC Section 1505.2. Non-combustible roof covering may be applied in accordance with the manufacturer's requirements in lieu of a fire retardant roofing assembly. Wood roofing materials are prohibited unless pressure treated and approved for fire retardant of Class A minimum. For existing structure when ten percent (10%) or more of the total roof area is re-roofed within any one-year period, shall have a Class A fire retardant roof covering for entire roof area. For existing structure when less than ten percent (10%) of the total roof area is re-roofed within any one-year period, shall have a fire retardant roof covering class equal to or greater than the existing roof covering and not less than Class B.

C. The first paragraph of Subsection R902.2 is hereby amended to read as follows:

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

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A or B roofs. *(balance of subsection to remain unchanged).*

D. Subsection R903.4 is hereby amended by adding a second paragraph to read as follows:

Water that accumulates on a roof shall be effectively drained and conveyed from the roof to a storm drain, street gutter, or other locations approved by the Building Official. Such water shall be conveyed through gutters, leaders, associated piping or other non-erodible surface drainage devices as approved by the Building Official. For any minor or small roofs, the Building Official may exempt this requirement.

15.22.070 Chapter 44 amended — Referenced Standards (NFPA 13, NFPA 13R, NFPA 13D).

The Referenced Standards in Chapter 44 of CRC are hereby amended as follows:

A. **NFPA 13, 2013 Edition, Installation of Sprinkler Systems** is hereby amended as follows:

1. Section 6.8.3 is hereby revised to read in its entirety 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 FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

2. Section 8.3.3.1 is hereby revised to read in its entirety as follows:

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

e) Quick-response type as defined in 3.6.4.7.
f) Residential sprinklers in accordance with the requirements of 8.4.5.
g) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers.
h) Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems.

3. Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Waterflow Alarms. A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system, where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each unit. 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, whichever is greater. 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.

4. Section 11.1.1.2 is hereby added as follows:

11.1.1.2 When fire sprinkler systems are required in buildings of undetermined use other than warehouses,

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

5. Section 11.2.3.1.1.1 is hereby added as follows:

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

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

6. Section 23.2.1.1 is hereby revised to read in its entirety as follows:

23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

B. **NFPA 13R 2013 Edition Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height** is hereby amended as follows:

1. Section 6.16.1 is hereby revised to read in its entirety as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to

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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 the California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each dwelling unit. 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, whichever is greater. 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.

C. **NFPA 13D 2013 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

1. Section 7.1.2 is hereby revised to read in its entirety 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.

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

7.6 Alarms. Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location is subject to final approval by the fire code official. Additional

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interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces. 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, whichever is greater. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

3. When an approved water flow monitoring system is installed, interior audible devices may be powered through the fire alarm control panel.
4. When smoke detectors specified under CBC Section 907.2.11 are used to sound an alarm upon waterflow switch activation.

3. Section 12.3.6 is hereby added as follows:

12.3.6 Stock of Spare Sprinklers.

4. Section 12.3.6.1 is hereby added as follows:

12.3.6.1 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.

5. Section 12.3.6.2 is hereby added as follows:

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

6. Section 12.3.6.3 is hereby added as follows:

12.3.6.3 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).

7. Section 12.3.6.4 is hereby added as follows:

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12.3.6.4 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. The amendments to the California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Green Building Standards Code, and California Residential Code herein have been adopted pursuant to Public Resource Code Section 4117 and Health and Safety Code Section 18941.5 and have been justified by the local conditions prevalent in the City of San Clemente as more particularly described in City Council Resolution No. ____ incorporate herein by this reference as if set forth in full.

Section 8. If any portion of this Ordinance, or the application of any such provision to any person or circumstance, shall be held invalid, the remainder of this Ordinance to the extent it can be given effect, of the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby, and to this extent the provisions of this Ordinance are severable.

Section 9. This Ordinance shall become effective January 1, 2014.

Section 10. The City Clerk shall certify to the passage of this Ordinance and cause the same to be published as required by law and the same shall take effect as provided by law.

APPROVED, ADOPTED and SIGNED this _____ day of _____, 2013.

_____
Mayor of the City of
San Clemente, California

ATTEST

_____
CITY CLERK of the City of
San Clemente, California

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STATE OF CALIFORNIA)
COUNTY OF ORANGE) **ss**
CITY OF SAN CLEMENTE)

I, JOANNE BAADE, City Clerk of the City of San Clemente, California, do hereby certify that Ordinance No. _____ was regularly introduced at the meeting of _____, The reading in full thereof unanimously waived and was adopted at a regular City Council meeting held on the _____ day of _____, 2013 by the following vote:

AYES:

NOES:

ABSENT:

_____
CITY CLERK of the City
of San Clemente, California

Approved as to form:

_____

City Attorney

i:\building\code adoption nov 2013\2013 bldg_code_ord_updateddraft_9-18-13_-san_clemente.doc

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Attachment – #5

Attachment #5

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ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF SAN CLEMENTE AMENDING CHAPTER 8.16 OF THE SAN CLEMENTE MUNICIPAL CODE AND ADOPTING FIRE CODE REGULATIONS FOR THE CITY OF SAN CLEMENTE

THE CITY COUNCIL OF THE CITY OF SAN CLEMENTE DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Chapter 8.16 of the San Clemente Municipal Code is hereby amended to read in its entirety as follows:

Chapter 8.16 FIRE CODE

8.16.010 Fire Code Adopted

The 2013 California Fire Code, based on the International Fire Code, 2012 Edition, with errata, published by International Code

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Council (ICC), and the whole thereof, including Appendices A, B, BB, C and CC is hereby adopted by the City of San Clemente for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire or explosion, save and except such portions as are hereinafter added, deleted, modified or amended. A copy of this code is on file in the City's Building Division office for public inspection and is adopted with the same force and effect as through set out herein in full.

8.16.020 Enforcement and Inspections

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

8.16.030 Division II of Chapter 1 amended — Administration

Division II of Chapter 1– Administration is hereby amended as follows:

A. Subsection 101.1 is hereby amended to read in its entirety as follows:

101.1 Title. These regulations shall be known as the Fire Code of the City of San Clemente, hereinafter referred to as "this code".

B. Subsection 109.4 is hereby amended to read in its entirety as follows:

109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of either a misdemeanor, infraction or both as prescribed in Section 109.4.2 and 109.4.3 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.

C. A new Subsection 109.4.2 is hereby added to Section 109 to read in its entirety as follows:

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109.4.2 Infraction. Except as provided in Section 109.4.3, 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.

D. A new Subsection 109.4.3 is hereby added to Section 109 to read in its entirety as follows:

109.4.3 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
107.5 Overcrowding
109.3.2 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
3104.7 Open or exposed flames

E. Subsection 111.4 is hereby amended to read in its entirety as follows:

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than specified in the city of San Clemente Municipal Code and/or by Fee Resolution.

8.16.040 Chapter 2 amended -- Definitions

Chapter 2 – Definitions, is hereby amended as follows:

A. Section 202 is hereby amended by adding "Approach-Departure Path," "Emergency Helicopter Landing Facility (EHLF)," "Flow-line," "Hazardous Fire Area," "Safety Area," "Sky Lantern", and "Takeoff and Landing Area" and revising "High-Rise Building" as follows:

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

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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, police, or medical helicopters engaged in emergency operations.

FLOW-LINE. The lowest continuous elevation on a 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 as presenting a fire hazard 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 in this Code:

> **Existing high-rise structure.** A high-rise structure, the construction of which is commenced or completed prior to July 1, 1974.
>
> **High-rise structure.** Every building of any type of construction or occupancy having floors used for human occupancy located more than 55 feet above the lowest floor level having building access, except buildings used as hospitals as defined in Health and Safety Code Section 1250.
>
> **New high-rise building.** A high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50 percent complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such buildings shall commence on or before January 1, 1976.
>
> **New high-rise structure.** means a high-rise structure, the construction of which commenced on or after July 1, 1974.

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

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SKY LANTERN. An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

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

8.16.050 Chapter 3 amended -- General Requirements

Chapter 3 – General Requirements is hereby amended as follows:

A. Subsection 304.1.2 is hereby revised as follows:

304.1.2 Vegetation. Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49 and OCFA vegetation management guidelines. *(balance of section to remain unchanged)*

B. A new Subsection 305.5 is hereby added to Section 305 to read in its entirety as follows:

305.5 Chimney spark arrestors. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrestor. Chimneys serving outdoor appliances or fireplaces shall be equipped with a spark arrestor. The spark arrestor shall meet the requirements of Section 2113.9.2 of the California Building Code.

C. A new Subsection 305.6 is hereby added to Section 305 to read in its entirety as follows:

305.6 Outdoor fires. Outdoor fires shall be in accordance with Sections 305, 307, and 308 and with other applicable sections of this code.

305.6.1 Where prohibited. Outdoor fires shall not be built, ignited or maintained in fuel modification areas, Wildfire Risk Areas (WRA) and adopted Fire Hazard Severity Zones (FHSZ) or Special Fire Protection Areas (SFPA) or other locations where conditions could cause the spread of fire to the WRA, SFPA or FHSZ, except by permit from the fire code official.

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Exceptions: A permit is not required for the following:

1. Fires in approved outdoor or portable fireplaces, fire pits, fire rings and similar devices at Group R occupancies that are installed and used in accordance with this code.

2. Outdoor fires at inhabited premises or official organized campsites or parks when located in a permanent or portable barbeque or grill, incinerator, or outdoor fireplace located at least 30 feet from combustible vegetation.

3. Installations or uses approved by the fire code official.

305.6.1.1 Fuel Modification Areas. Outdoor fires using wood or other solid fuel shall not be built, ignited or maintained in a fuel modification area.

305.6.1.2 Supervision. Where a permit is issued or when allowed under the exceptions to Section 305.6.1, such fires shall be supervised by a person 18 years of age or older.

305.6.2 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

305.6.3 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.

D. Section 307 is hereby amended to read as follows:

SECTION 307
OPEN BURNING, RECREATIONAL FIRES, FIRE PITS, FIRE RINGS, AND OUTDOOR FIREPLACES

E. A new Subsection 307.6 is hereby added to Section 307 to

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read in its entirety as follows:

307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this section.

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

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the Building Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At other R occupancies, the minimum distance shall be ten feet. Where a permanent Building Department approved hood and vent is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester in accordance with Section 305.5.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code and Section 305.5. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be managed per Section 307.5.

307.6.2.1 Where prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and

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adopted Fire Hazard Severity Zones (FHSZ) and Special Fire Protection Areas (SFPA) or in locations where conditions could cause the spread of fire to the WRA or FHSZ, unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

F. A new Section 319 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 319
DEVELOPMENT ON OR NEAR LAND CONTAINING OR EMITTING TOXIC, COMBUSTIBLE OR FLAMMABLE LIQUIDS, GASES OR VAPORS

319.1 General. 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.

G. A new Section 320 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 320
FUEL MODIFICATION REQUIREMENTS FOR NEW CONSTRUCTION

320.1 General. All new buildings to be built or installed in areas with or adjacent to land having hazardous combustible vegetation shall comply with the requirements in the edition of OCFA Vegetation Management Guidelines currently in use at the time of plan submittal.

H. A new Section 321 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 321
CLEARANCE OF BRUSH OR VEGETATION GROWTH FROM ROADWAYS

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321.1 General. 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.

I. A new Section 322 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 322
UNUSUAL CIRCUMSTANCES

322.1 General. 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.

J. A new Section 323 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 323
USE OF EQUIPMENT

323.1 General. 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

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engine is equipped with a spark arrester as defined in Section 323.2 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 Vehicle Code of the State of California.

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

323.2 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 323 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.

K. A new Section 324 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 324
RESTRICTED ENTRY

324.1 General. 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.

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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.

L. A new Section 325 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 325
TRESPASSING ON POSTED PROPERTY

325.1 General. 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.

325.2 Signs. Approved signs prohibiting entry by unauthorized persons and referring to applicable fire code chapters shall be placed on every closed area.

325.3 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.

M. A new Section 326 is hereby added to Chapter 3 to read in its entirety as follows:

SECTION 326
SKY LANTERNS OR SIMILAR DEVICES.

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326.1 General. The ignition and/or launching of a Sky Lantern or similar device is prohibited.

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

8.16.060 Chapter 4 amended -- Emergency Planning and Preparedness

Chapter 4 – Emergency Planning and Preparedness is hereby amended by adopting only the Sections 401, 401.3.4, 401.9, 402, 403, 404.6 through 404.7.6, 407, 408.3.1 through 408.3.2, and 408.12 through 408.12.3. Other sections of Chapter 4 are hereby deleted without replacement.

8.16.070 Chapter 5 amended -- Fire Service Features

Chapter 5 -- Fire Service Features is hereby amended as follows:

A. Subsection 503.2.1 is hereby amended to read in its entirety as follows:

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

B. A new Subsection 503.2.1.1 is hereby added to Section 503 to read in its entirety as follows:

503.2.1.1 Hazardous Fire Areas. In Hazardous Fire Areas the minimum fire apparatus road width shall be 28 feet (8530 mm). The width shall be maintained to an approved point outside of the Hazardous Fire Area.

Exception: When the road serves no more than three dwelling units and the road does not exceed 150 feet in

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length, the road width may be 24 feet (7300 mm). This length may be increased to 400 feet where serving no more than three dwelling units and all structures accessed from the roadway are protected by automatic fire sprinklers.

C. Subsection 505.1 is hereby amended to read in its entirety 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. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. 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 means of 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. Address numbers shall be maintained.

D. Subsection 510.1 is hereby amended to read in its entirety as follows:

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems. The Emergency responder radio coverage system shall comply with one of the following:

1. An emergency radio system installed in accordance with the local authority having jurisdiction's ordinance (S.C.M.C. Chapter 8.80)

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2. An emergency radio coverage system installed in accordance with Orange County Fire Authority's Emergency Responder Digital Radio Guideline.

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.
2. In facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on normal operations of the facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.

E. Subsections 510.2; 510.3; 510.4; 510.5; 510.6 are hereby deleted without replacement.

8.16.080 Chapter 6 amended -- Building Services and Systems

Chapter 6 -- Building Services and Systems is hereby amended as follows:

A. Subsection 608.1 of Section 608 is hereby amended to read in its entirety as follows:

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

B. A new Subsection 608.10 is hereby added to Section 608 to read in its entirety as follows:

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

1. Spill control and neutralization shall be provided and comply with Section 608.5.

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2. Room ventilation shall be provided and comply with Section 608.6.1
3. Signage shall be provided and comply with Section 608.7.1
4. Smoke detection shall be provided and comply with Section 907.2

8.16.090 Chapter 9 amended -- Fire Protection Systems

Chapter 9 -- Fire Protection Systems is hereby amended as follows:

A. Subsection 903.2 is hereby amended to read in its entirety as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section and in Section 903.2 of the California Building Code as amended by the City of San Clemente as follows:

1. **New buildings**: In addition to the requirements of section 903.2.1 through 903.2.19, approved automatic sprinkler systems in new buildings and structures shall be provided as follows (Exception: Group R Detached one- two-family dwellings and townhouses as required by section 903.2.8):
   i) Throughout all Groups A, I, E, and H Occupancies
   ii) Throughout all Group B, F, M, and S Occupancies exceeding 1,000 square feet
   iii) Throughout all Group U-1 Occupancies exceeding 6,000 square feet

   For the purposes of this section, fire walls shall not define separate buildings.

2. **Alteration**: When the floor area of the Alteration within any two-year period exceeds 75% of area of the existing structure and the alteration includes structural modifications other than seismic upgrade.

3. **Addition**: Sprinkler protection shall be provided throughout the entire building when:

   1. Existing unsprinklered building less than 5,000 ft^2: where 20% or more is added and the gross floor areas exceeds 5,000 square feet.

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2. Existing unsprinklered building equal or greater than 5,000 ft^2: where more than 1,000 ft^2 is added.
3. Fire sprinklers shall be provided in additions to an existing building that has fire sprinklers installed.

B. Subsection 903.2.8 is hereby amended to read in its entirety as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Subsection 903.3 of Section 903 of this code and Subsection 903.3 of Section 903 of the California Building Code as amended by the City of San Clemente shall be provided throughout all buildings with a Group R fire area as follows:

1. All new Group R occupancies, including the attached garages
2. All existing Group R occupancies and U-1 garages when the total floor area is increase by 50% of the existing area over a 2-year period
3. All existing Group R occupancies and U-1 garages when the total area is increased by 750 square feet or more over a 2-year period
4. All existing Group R occupancies and U-1 garages when an additional story is added to the structure regardless of the area involved
5. An automatic sprinkler system shall be installed throughout any existing Group R Occupancy building when the floor area of the Alteration or Combination of an Addition and Alteration, within any two year period, is 50% or more of area of the existing structure and where the scope of the work exposes building framing and facilitates sprinkler installation and is such that the Building/Fire Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.
6. Any addition to existing building that has fire sprinklers installed.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor and not housing clients above the second floor.

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2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 425.8.3.3.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill or mentally retarded, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

When not used in accordance with Section 504.2 or 506.3 an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

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

C. A new Subsection 903.3.5.3 is hereby added to Section 903 to read in its entirety as follows:

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity

Exception: When static pressure exceeds 100 psi, and required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3

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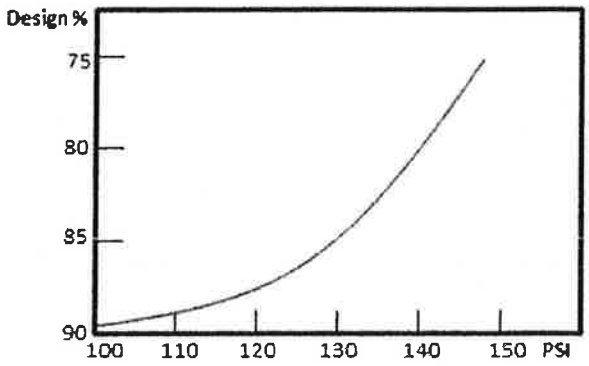
TABLE 903.3.5.3
Hydraulically Calculated Systems



D. Subsection 903.4 is hereby amended to read in its entirety as follows:

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

Exceptions:
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.

E. Subsection 905.4 is hereby amended by adding item 7 as follows:

7. The centerline of the 2.5 inches (63.5 mm) outlet shall be no less than 18 inches (457.2 mm) and no more than 24 inches (610 mm) above the finished floor.

F. Subsection 907.2.13 is hereby amended to read in its entirety as follows:

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907.2.13 High-rise buildings and Group I-2 occupancies having floors located more than 55 feet above the lowest level fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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 907.5.2.2

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 406.5 of the California Building Code.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.6 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. Subsection 907.3.1 is hereby amended to read in its entirety as follows:

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.

H. Subsection 907.5.2.2 is hereby amended to read in its entirety as follows.

907.5.2.2 Emergency voice/alarm communication systems. 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 waterflow 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 fire safety and evacuation plans required by Section 404. In high-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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 Chapter 2.
5. Dwelling units in apartment houses.
6. Hotel guest rooms or suites.

Exception: In Group I-2 and R-2.1occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

I. Subsection 907.6.3.2 is hereby amended to read in its entirety as follows:

907.6.3.2 High-rise buildings. High-rise buildings and Group I-2 occupancies having occupied floors located more than 55 feet above the lowest level of 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.

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

J. Subsection 907.6.5 is hereby amended to read as follows:

907.6.5 Monitoring. Fire alarm systems required by this chapter or by the California Building Code shall be monitored by an approved supervising station in accordance with NFPA 72, this section, and per Orange County Fire Authority Guideline "New and Existing Fire Alarm & Signaling Systems." *(balance of subsection to remain unchanged)*

8.16.100 Chapter 11 amended – Construction Requirements for Existing Buildings

Chapter 11 – Construction Requirements for Existing Buildings is hereby amended by adopting only Sections 1103.7, 1103.7.3, 1103.7.3.1, 1103.7.8 through 1103.7.8.2, 1103.7.9 through 1103.7.9.10, 1103.8 through 1103.8.5.3, and 1106. Other sections of Chapter 11 are hereby deleted without replacement.

8.16.110 Chapter 20 amended – Aviation Facilities

Chapter 20 – Aviation Facilities is hereby amended as follows:

A. A new Section 2008 is hereby added to Chapter 20 to read in its entirety as follows:

SECTION 2008
EMERGENCY HELICOPTER LANDING FACILITY (EHLF)

2008.1 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 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.

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2008.1.1 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.

2008.1.2 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 rises outward and upward at a ratio of eight feet horizontal distance for every one foot of vertical height.

2008.1.3 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.

2008.1.4 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/sf 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.

2008.1.5 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.

2008.1.6 Wind Indicating Device. An approved wind indicating device shall be provided but shall not extend into the safety area or the approach-departure paths.

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2008.1.7 Special Markings. The emergency helicopter landing facility shall be marked as indicated in Figure 2008.1.7.

2008.1.8 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 Section 1009.7.2 for riser height and tread depth. Handrails shall be provided, but shall not extend above the platform surface.

2008.1.9 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.

2008.1.10 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.

2008.1.11 EHLF. Fueling, maintenance, repairs, or storage of helicopters is prohibited.

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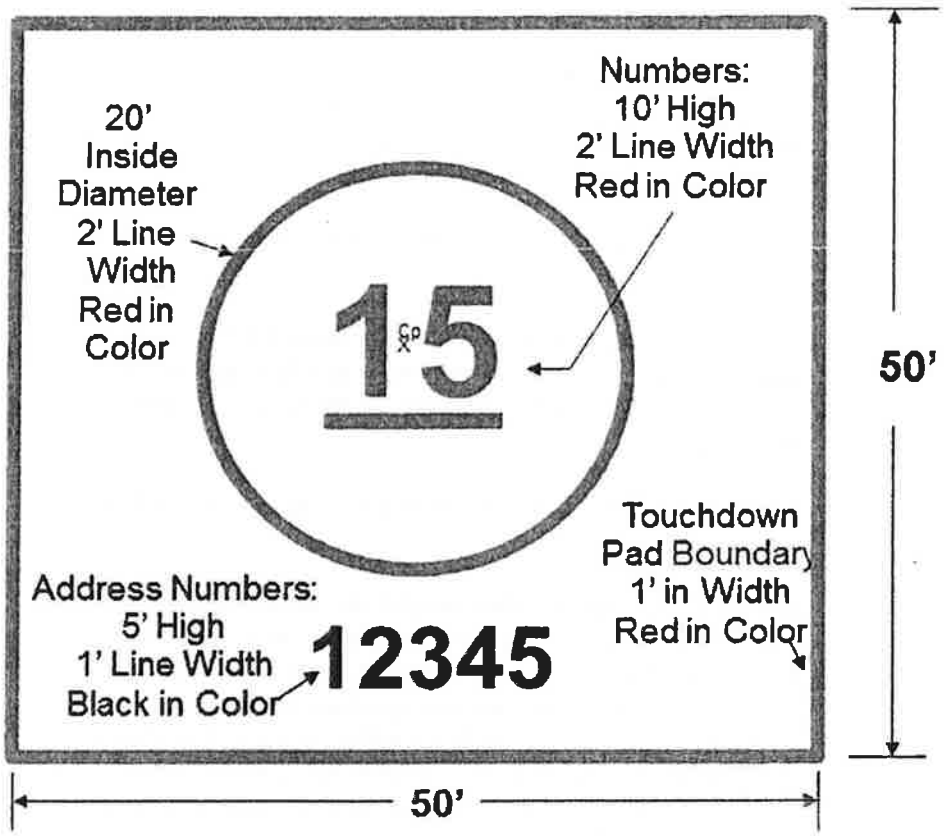
Figure 2008.1.7 Helicopter Landing Pad Markings



1. The preferred background is white or tan.
2. The circled center number indicates the allowable weight that the facility is capable of supporting in thousands of pounds.
3. The numbers shall be orientated towards the preferred flight (typically facing the prevailing wind

8.16.120 Chapter 28 amended -- Lumber Yards and Woodworking Facilities

Chapter 28 -- Lumber Yards and Woodworking Facilities is hereby amended as follows:

A. Subsection 2801.2 is hereby amended to read in its entirety as follows:

2801.2 Permit. Permits shall be required as set forth in Section 105.6. For Miscellaneous Combustible Storage Permit, see Section 105.6.29.

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B. Subsection 2808.2 is hereby amended to read in its entirety as follows:

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring products to the site.

C. The first sentence of Subsection 2808.3 is hereby amended as follows:

2808.3 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. *(Balance of the section to remain unchanged)*

D. Subsection 2808.7 is hereby amended to read in its entirety as follows:

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. Oscillating sprinklers with a sufficient projectile reach are required to maintain a 40% to 60% moisture content and wet down burning/smoldering areas.

E. Subsection 2808.9 is hereby amended to read in its entirety as follows:

2808.9 Material-handling equipment. All material handling equipment operated by an internal combustion engine shall be provided and maintained with an approved spark arrester. Approved material-handling equipment shall be available for moving wood chips, hogged material, wood fines and raw product during fire-fighting operations.

F. A new subsection 2808.11 is hereby added to read in its entirety as follows:

2808.11 Temperature control. The temperature shall be monitored and maintained as specified in Sections 2808.11.1 and 2808.11.2.

G. A new subsection 2808.11.1 is hereby added to read in its entirety as follows:

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

H. A new subsection 2808.11.2 is hereby added to read in its entirety as follows:

2808.11.2 New material temperature control. New loads delivered to the facility shall be inspected and tested at the facility entry prior to taking delivery. Material with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the site. New loads shall be monitored to verify that the temperature remains stable.

8.16.130 Chapter 49 amended -- Requirements For Wildland-Urban Interface Fire Areas

Chapter 49 -- Requirements For Wildland-Urban Interface Fire Areas is hereby amended as follows:

A. Subsection 4906.3 is hereby amended by adding item no. 5 to the end of section as follows:

5. OCFA Vegetation Management Guideline.

B. A new Section 4908 is hereby added to read in its entirety as follows:

SECTION 4908
FUEL MODIFICATION REQUIREMENTS FOR NEW CONSTRUCTION

4908.1 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.

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2.1 The fuel modification plan shall include provisions for the maintenance of the fuel modification for perpetuity.

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 approval from the fire code official.

5. All elements of the fuel modification plan shall be maintained in accordance with the approved plan and are subject to the enforcement process outlined in the Fire Code.

8.16.140 Chapter 50 amended -- Hazardous Materials – General Provisions

Chapter 50 -- Hazardous Materials – General Provisions is hereby amended as follows:

A. The first paragraph of Subsection 5001.5.2 is hereby amended to read in its entirety as following:

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include Orange County Fire Authority's Chemical Classification Packet, which shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises. The Chemical Classification Packet shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems
9. Amount in use-open systems.

(Balance of the section to remain unchanged)

B. Table 5003.1.1(1) is hereby amended by deleting Footnote k. without replacement.

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C. A new Subsection 5003.1.1.1 is hereby added to Section 5003 to read in its entirety as follows:

5003.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

D. Subsection 5003.5 is hereby amended to read in its entirety as follows:

5003.5 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. *(Balance of the section to remain unchanged)*

8.16.150 Chapter 55 amended -- Cryogenic Fluids

Chapter 55 -- Cryogenic Fluids is hereby amended as follows:

A. Subsection 5503.4.1 is hereby amended to read in its entirety as follows:

5503.4.1 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.

8.16.160 Chapter 56 amended -- Explosives and Fireworks

Chapter 56 -- Explosives and Fireworks is hereby amended as follows:

A. A new Subsection 5601.2 is hereby added to Section 5601 to read in its entirety as follows:

5601.2 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. A new Subsection 5601.3 is hereby added to Section 5601 to read in its entirety as follows:

5601.3 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. A new subsection 5602 is hereby added to read in its entirety as follows:

5602 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.

D. Subsection 5608.1 is hereby amended to read in its entirety as follows:

5608.1 General. Outdoor fireworks displays, use of pyrotechnics before a proximate 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.

E. A new Subsection 5608.2 is hereby added to Section 5608 to read in its entirety as follows:

5608.2 Firing. All fireworks displays shall be electrically fired.

8.16.170 Chapter 57 amended -- Flammable and Combustible Liquids

Chapter 57 -- Flammable and Combustible Liquids is hereby amended as follows:

A. Subsection 5704.2.3.2 is hereby amended to read in its entirety as follows:

5704.2.3.2 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.

Exceptions:

1. Tanks of 300-gallon (1136 L) capacity or less located on private property and used for heating and cooking fuels in single family dwellings.
2 Tanks located underground.

8.16.180 Chapter 60 amended -- Highly Toxic and Toxic Materials

Chapter 60 -- Highly Toxic and Toxic Materials is hereby amended as follows:

A. The Exceptions in Subsection 6004.2.2.7 are hereby amended to read in its entirety 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, a listed and 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

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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 6004.2.2.10.

8.16.190 Chapter 80 amended -- Referenced Standards

The Referenced Standards in Chapter 80 are hereby amended as follows:

A. **NFPA 13, 2013 Edition, Installation of Sprinkler Systems** is hereby amended as follows:

1. Section 6.8.3 is hereby revised to read in its entirety 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 FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 ½" inlets shall be provided.

2. Section 8.3.3.1 is hereby revised to read in its entirety as follows:

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

a) Quick-response type as defined in 3.6.4.7.

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b) Residential sprinklers in accordance with the requirements of 8.4.5.

c) Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers.

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

3. Section 8.17.1.1.1 is hereby added as follows:

8.17.1.1.1 Residential Waterflow Alarms. A local water-flow alarm shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system, where provided. Group R occupancies not requiring a fire alarm system by the California Fire Code shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each unit. 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, whichever is greater. 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.

4. Section 11.1.1.2 is hereby added as follows:

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

5. Section 11.2.3.1.1.1 is hereby added as follows:

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

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

6. Section 23.2.1.1 is hereby revised to read in its entirety as follows:

23.2.1.1 Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

B. **NFPA 13R 2013 Edition Installation of Sprinkler System in Residential Occupancies up to and Including Four Stories in Height** is hereby amended as follows:

1. Section 6.16.1 is hereby revised to read in its entirety as follows:

6.16.1 A local water-flow alarms shall be provided on all sprinkler systems and shall be connected to the building fire alarm or water-flow monitoring system where provided. Group R occupancies containing less than the number of stories, dwelling units or occupant load specified in the California Fire Code as requiring a fire alarm system shall be provided with a minimum of one approved interior alarm device in each unit. Interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces within each dwelling unit. 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, whichever is greater. When not connected to a

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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.

C. **NFPA 13D 2013 Edition Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes** is hereby amended as follows:

1. Section 7.1.2 is hereby revised to read in its entirety 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.

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

7.6 Alarms. Exterior alarm indicating device shall be listed for outside service and audible from the street from which the house is addressed. Exterior audible devices shall be placed on the front or side of the structure and the location is subject to final approval by the fire code official. Additional interior alarm devices shall be required to provide 55 dBA or 15 dBA above ambient, whichever is greater, throughout all living spaces. 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, whichever is greater. Audible devices shall be powered from an uninterruptible circuit (except for over-current protection) serving normally operated appliances in the residence.

Exceptions:

1. When an approved water flow monitoring system is installed, interior audible devices

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may be powered through the fire alarm control panel.

2. When smoke detectors specified under CBC Section 907.2.11 are used to sound an alarm upon waterflow switch activation.

3. Section 12.3.6 is hereby added as follows:

12.3.6 Stock of Spare Sprinklers.

4. Section 12.3.6.1 is hereby added as follows:

12.3.6.1 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.

5. Section 12.3.6.2 is hereby added as follows:

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

6. Section 12.3.6.3 is hereby added as follows:

12.3.6.3 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).

7. Section 12.3.6.4 is hereby added as follows:

12.3.6.4 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.

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

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

7.3.1.1 Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the

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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, 2013 Edition, Installation of Private Fire Service Mains and Their Appurtenances** is hereby amended as follows:

1. Section 6.2.1.1 is hereby added as follows:

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

2. Section 6.2.11 (5) is hereby deleted without replacement and (6) and (7) renumbered as follows:

   (5) Control Valves installed in a fire-rated room accessible from the exterior.
   (6) Control valves in a fire-rated stair enclosure accessible from the exterior as permitted by the authority having jurisdiction.

3. Section 6.3.3 is hereby added as follows:

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

4. Section 10.1.6.3 is hereby added as follows:

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

   Exception: 304 or 316 Stainless Steel pipe and fittings

5. Section 10.3.6.2 is hereby revised to read in its entirety as follows:

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

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

6. Section 10.3.6.3 is hereby added as follows:

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

7. Section 10.6.3.1 is hereby revised to read in its entirety 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 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.6.2.

8. Section 10.6.4 is hereby revised to read in its entirety as follows:

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

Section 2. The amendments to the California Fire Code listed herein have been adopted pursuant to Public Resource Code Section 4117 and Health and Safety Code Section 18941.5 and have been justified by the local conditions prevalent in the City of San Clemente as more particularly described in City Council Resolution No. ____, incorporated herein by this reference as if set forth in full.

Section 3. If any portion of this Ordinance, or the application of any such provision to any person or circumstance, shall be held invalid, the remainder of this Ordinance to the extent it can be given effect, of the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby, and to this extent the provisions of this Ordinance are severable.

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Section 4. The City Clerk shall certify to the passage of this Ordinance and cause the same to be published as required by law and the same shall take effect as provided by law.

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APPROVED, ADOPTED and SIGNED this _____ day of _____, 2013.

_____
Mayor of the City of
San Clemente, California

ATTEST

_____
CITY CLERK of the City of
San Clemente, California

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STATE OF CALIFORNIA)
COUNTY OF ORANGE) **ss**
CITY OF SAN CLEMENTE)

I, JOANNE BAADE, City Clerk of the City of San Clemente, California, do hereby certify that Ordinance No. _____ was regularly introduced at the meeting of _____, The reading in full thereof unanimously waived and was adopted at a regular City Council meeting held on the _____ day of _____, 20__ by the following vote:

AYES:

NOES:

ABSENT:

_____
CITY CLERK of the City
of San Clemente, California

Approved as to form:

_____
City Attorney

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