



PLANNING DEPARTMENT
BUILDING & NEIGHBORHOOD REVITALIZATION DIVISION

December 23, 2010

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

RE: City of Pasadena, Building Code Adoption Ordinance

Dear Mr. Walls:

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

The City of Pasadena has recommended changes and modifications to the Codes and has advised that certain said changes and modifications to the 2010 Editions of the California Building, Residential, Green Building and Fire Codes are reasonably necessary due to local conditions. Furthermore, has advised that the remainder of said changes and modifications are of an administrative or procedural nature with subjects not covered by the Code or are reasonably necessary to safeguard life and property within the City of Pasadena.

The enclosed City Ordinance #7201 is for your files.

If additional information is desired please telephone this office at (626) 744-7087.

Sincerely,

Sarkis Nazerian
Building Official

SN:tf:u:walls code adoption-ltr2010
Enclosure

RECEIVED
CITY OF PASADENA
BUILDING & SAFETY
01:11:10
12/29/10



Ordinance Fact Sheet

TO: CITY COUNCIL

DATE: November 15, 2010

FROM: CITY ATTORNEY

SUBJECT: AN ORDINANCE OF THE CITY OF PASADENA ADOPTING THE CALIFORNIA CODE OF REGULATIONS TITLE 24 INCORPORATING THE 2010 CALIFORNIA BUILDING CODE CHAPTERS 1-35 AND APPENDIX CHAPTERS C, D, H, I, AND J; THE 2010 CALIFORNIA RESIDENTIAL BUILDING CODE; THE 2010 CALIFORNIA MECHANICAL CODE; THE 2010 CALIFORNIA PLUMBING CODE; THE 2010 CALIFORNIA ELECTRICAL CODE; THE 2010 CALIFORNIA FIRE CODE AND THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE

TITLE OF PROPOSED ORDINANCE:

AN ORDINANCE OF THE CITY OF PASADENA ADOPTING THE CALIFORNIA CODE OF REGULATIONS TITLE 24 INCORPORATING THE 2010 CALIFORNIA BUILDING CODE CHAPTERS 1-35 AND APPENDIX CHAPTERS C, D, H, I, AND J; THE 2010 CALIFORNIA RESIDENTIAL BUILDING CODE; THE 2010 CALIFORNIA MECHANICAL CODE; THE 2010 CALIFORNIA PLUMBING CODE; THE 2010 CALIFORNIA ELECTRICAL CODE; THE 2010 CALIFORNIA FIRE CODE AND THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE

PURPOSE OF PROPOSED ORDINANCE:

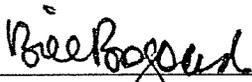
The State has adopted the California Building Code, Fire Code, and other related codes. By adopting the proposed ordinance the City adopts and amends these codes in order to better meet local conditions and needs. If the City does not adopt and make its local amendments these state codes will apply to the City as written.

12/06/2010

MEETING OF 11/15/2010

AGENDA ITEM NO. -6- 17

SECTION 8. This ordinance shall take effect 30 days from publication.
Signed and approved this 6th day of December, 2010



Bill Bogaard
Mayor of the City of Pasadena

I HEREBY CERTIFY that the foregoing ordinance was adopted by the City Council of the City of Pasadena at its meeting held this 6th day of December, 2010, by the following vote:

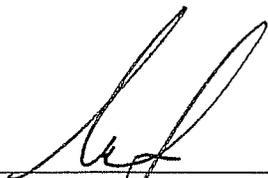
Ayes Councilmembers Haderlein, Holden, Madison, McAustin, Robinson, Tornek, Vice Mayor Gordo, Mayor Bogaard

Noes None

Absent None

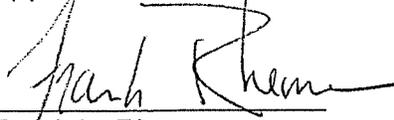
Abstain None

Date published: December 9, 2010
Pasadena Journal



Mark Jomsky, CMC
City Clerk

Approved as to form:



Frank L. Rhemrev
Assistant City Attorney

BACKGROUND:

Every three years the California Building Standards Commission adopts a new set of building codes which include building, electrical, mechanical, plumbing, and fire standards. This year the State also adopted the California Green Building Standards Code and the California Residential Building Code. Local jurisdictions must adopt and enforce these newly adopted codes and apply the minimum requirements to all construction projects that file a building permit application after January 1, 2011. Local jurisdictions may add to or amend these state codes to be more restrictive, but not less restrictive.

Significant with this code amendment is the adoption of the California Green Building Standards (CALGreen). The ordinance presented herein will make mandatory certain building requirements for multifamily of four stories or more and commercial properties over 25,000 square feet, which are voluntary under CALGreen, but mandatory under the City's existing Green Building Ordinance. In regard to single family dwellings, the proposed ordinance exceeds the CALGreen requirements in that it would include additions and alterations to existing dwellings in addition to new construction as required by CALGreen. Nevertheless, compliance with these requirements is rather easy to achieve and as such is not expected to create a burden for those undertaking additions/alterations to single family homes.

On October 25, 2010, the City Council approved the adoption and amendment of the State codes and instructed the City Attorney to prepare an ordinance.

REASON WHY LEGISLATION IS NEEDED:

The City's ordinances relating to building and fire codes were established by ordinance and must be amended by ordinance.

PROGRAM, DEPARTMENT, OR GROUPS AFFECTED:

The oversight of the building codes is with the Planning Department, Building and Safety Division, the oversight of the fire codes is with the Fire Department.

ENVIRONMENTAL:

The adoption and amendment of the building and fire codes is exempt from CEQA pursuant to Guideline section 15061(b)(3) where there is no possibility the project may have a significant effect on the environment.

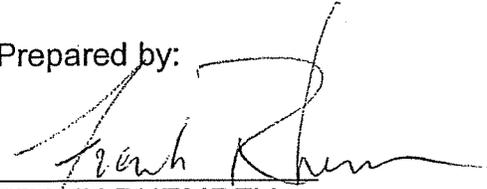
FISCAL IMPACT:

All costs associated with implementing these code changes will be recovered through the adopted fees.

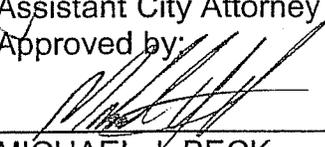
Respectfully submitted,


MICHELE BEAL BAGNERIS
City Attorney

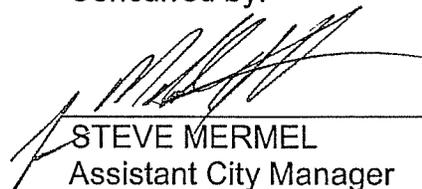
Prepared by:


FRANK RHEMREV
Assistant City Attorney

Approved by:


MICHAEL J. BECK
City Manager

Concurred by:


STEVE MERMEL
Assistant City Manager

Introduced by: Councilmember McAustin

ORDINANCE NO. 7201

AN ORDINANCE OF THE CITY OF PASADENA ADOPTING THE CALIFORNIA CODE OF REGULATIONS TITLE 24 INCORPORATING THE 2010 CALIFORNIA BUILDING CODE CHAPTER 1-35 AND APPENDIX CHAPTERS C, D, H, I, AND J; THE 2010 CALIFORNIA RESIDENTIAL BUILDING CODE; THE 2010 CALIFORNIA MECHANICAL CODE; THE 2010 CALIFORNIA PLUMBING CODE; THE 2010 CALIFORNIA ELECTRICAL CODE; THE 2010 CALIFORNIA FIRE CODE; AND THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE

Whereas the City of Pasadena is adopting the California Building Code, Green Building Standards Code, Fire Code and is making certain amendments thereto; and

Whereas State law requires that a city must adopt specific findings as to topographic, geological, and climatic conditions to justify the amendments to these codes;

Now Therefore, the City Council of the City of Pasadena finds as follows:

1. With respect to the amendments to the state code as set forth in Sections 14.04.102, 105, 110, 115, 275, 330 and 335 below,

Justification: Topographic and Climatic. Pasadena's hillside areas have narrow and winding access roads, which makes timely response by large fire suppression vehicles difficult. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. These amendments prohibit the use of wood as exterior wall and roof covering material in very high, high and moderate fire hazard areas and require other exterior wall finishes and roofing materials to have a class A assembly. This will reduce the potential for rapid spread of fire throughout the city during periods of strong seasonal winds.

2. With respect to the amendment to the state building codes as set forth in Sections 14.04.260, 265 and 270 below,

Justification Climatic: Because of the risk of delays in fire rescue response time due to traffic congestion and due to the high number of swimming pools within close proximity to small children because of local climate which makes pool ownership desirable, pool barriers are necessary. Additionally, the amendments correct an administrative error in the State's adoption which intended to provide pool barriers. The amendments are consistent with barrier requirements previously in force in the City of Pasadena.

3. With respect to the amendments to the state code as set forth in Sections 14.04.120, 122, 125, 130, 135, 140, 150, 155, 160, 165, 170, 180, 185, 190, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 280, 290, 305, 310, 315, 320 and 325 below,

Justification: Geologic. Pasadena is situated primarily on the Sierra Madre fault near the base of the San Gabriel Mountains. Other faults near or in the city are the Eagle Rock fault (originally termed the San Rafael fault), Verdugo Hills fault, and Elysian Park fault. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Review of damage resulting from the January 17, 1994 Northridge Earthquake revealed significant damage to many buildings throughout the Southern California region. The referenced amendments are necessary to implement improved design standards, to use current recognized standards and referenced recently published, and to reduce the risk of personal injury, loss of life and property damage within structures.

4. With respect to amendments to the state code as set forth in Section 14.04.285 below,

Local Topographical and Geological Conditions – The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Additionally, the topography within the Los Angeles region includes significant hillsides with narrow and winding access that makes timely response by fire suppression vehicles challenging and difficult. The proposed modification establishes design parameters to better mitigate and limit property damage that are the results of increased seismic forces which are imparted upon hillside buildings and structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the California Residential Code.

5. With respect to the amendments to the state code as set forth in Sections 14.04.175, 195, 200, 290, 295 and 300 below,

Local Climatic and Geological Conditions – The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood foundation systems as well as limit prescriptive design provisions in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to

existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code.

6. With respect to the amendments to the state building codes as set forth in Sections 14.04.500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 576 and 578 below,

Local environmental/Climatic Conditions – The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions. The proposed modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the proposed expansion of the Mandatory and Voluntary requirements and therefore need to be incorporated into the code to assure that new residential and non-residential buildings are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code.

7. With respect to the amendments to the state fire code as set forth in section 14.28.020 items 3, 25, 26, and 30 below, the proposed amendments are required due to **topographic** conditions. The increased use of decreased property line setback development and increased development densities increase the community risk from fire spread and the number of persons potentially endangered. The proposed amendments allow for either increased review and mitigation, or decreased hazard to the community, or both.

8. With respect to the amendments to the state fire code as set forth in section 14.28.020 items 4, 12, 13, 14, 21, 35, and 36 below, the proposed amendments are required due to **topographic** and **climatic** conditions. Narrow and winding access roads to hillside areas, and hot, dry weather and seasonal winds result in increased exposure to fire risk. The increased use of decreased property line setback development and increased development densities increase the community risk from fire spread and the number of persons potentially endangered. The proposed amendments allow for either increased review and mitigation, or decreased hazard to the community, or both.

9. With respect to the amendments to the state fire code as set forth in section 14.28.020 items 5 and 16 below, the proposed amendments are required due to **geologic** conditions. Pasadena is located within a seismically active zone and is near several active fault lines. The proposed amendments allow for either increased review and mitigation, or decreased hazard to the community, or both.

10. With respect to the amendments to the state fire code as set forth in section 14.28.020 items 9 and 10 below, the proposed amendments are required due to **topographic** conditions. The increased use of decreased property line setback development, increased use of light weight construction, increased intermingling of hazardous occupancies with less hazardous occupancies that have been historically separated, and increased development densities increase the community risk from fire spread and other hazardous conditions and the number of persons potentially endangered. The proposed amendments allow for the increased efficacy and safety of the response to emergencies improving the safety of both the community and emergency responders.

11. With respect to the amendments to the state fire code as set forth in section 14.28.020 item 15 below, the proposed amendment is required due to **geologic** conditions. Due to the City's significant use of groundwater, fire suppression systems experience an increased rate of mineral deposition due to dissolved minerals in the groundwater. This amendment mitigates the potential decrease in water flow caused by mineral deposition.

12. With respect to the amendment to the state fire code as set forth in section 14.28.020 items 17, 18, 20, and 33 below the proposed amendments are required due to **topographic** conditions. The increased use of decreased property line setback development and increased development densities increase the community risk from fire spread and increase the number of persons potentially endangered, and limits the space available in which emergency responders may operate effectively. Early and effective evacuation of building occupants increases the efficacy of fire attack and decreases the risk of fire spread. The proposed amendments allow for either increased review and mitigation, or decreased hazard to the community, or both.

13. For sections not specified above, no express findings are required under the requirements established by sections 17958, 17958.5, and 17958.7 of the California Health and Safety Code as these amendments are administrative in nature, merely provide clarification of existing California Code requirement, or address matters outside the scope of the above sections.

Accordingly, the People of the City of Pasadena ordain as follows:

SECTION 1. This ordinance, due to its length and corresponding publication will be published by title and summary as permitted by Section 508 of the Charter of the City of Pasadena. The approved summary of this ordinance is as follows:

"Summary

Ordinance No. 7201. The ordinance adopts the 2010 California Building Code, the 2010 California Fire Code, the 2010 Californian Green Building Standards Code and related codes as required by state law. The ordinance also provides for some amendments to these codes to accommodate special

topographic, geological, and climatic conditions found in Pasadena, consistent with state law. Ordinance No. 7201 shall take effect upon its publication by title, and summary. The full text of the ordinance is on file in the City Clerk's Office.”

SECTION 2. Chapter 14.03 of the Pasadena Municipal is amended as follows:

A. By amending Section 14.03.010 to read as follows:

14.03.010 - Adoption and filing

Except as herein provided by specific changes, the administrative, organizational and enforcement for the technical codes which regulate the site preparation and construction, alteration, moving, demolition, repair, use and occupancy of buildings, structures and building service equipment within the city shall be in accordance with the provisions and in the manner prescribed in administrative provisions of the 2010 Edition of the California Building Code, as published by the California State Building Standards Commission.

B. By amending Section 14.03.020 to read as follows:

14.03.020 - Section 101.1 of Chapter 1 Division II amended Title.

This ordinance shall be known and cited as the Pasadena Building Code for Building Construction Regulation, and will be referred to herein as this Code.

C. By amending Section 14.03.030 to read as follows:

14.03.030 - Chapter 1 Division II Section 103.1 of the California Building Code, creation of enforcement agency is amended as follows:

There has been established heretofore in this jurisdiction a code enforcement agency entitled, The Planning Department which employs a Building Official who shall be authorized to enforce the provisions of this code.

SECTION 3. Chapter 14.04 of the Pasadena Municipal Code is amended as follows:

A. By amending Section 14.04.010 to read as follows:

14.04.010 - Adoption and filing.

California Building Codes adopted. California Code of Regulation Title 24 part 1-12. The 2010 California Building Code Chapters 1-35 and Appendix Chapters , C, H, I, and J; the 2010 California Residential Code, the 2010 California Green Building Standards Code, the 2010 California Electrical Code; The 2010 California Mechanical Code; the 2010 California Plumbing Code, and 2010 California Fire Code all as published by the

California Building Standards Commission and as amended by the State Department of Housing And Community Development (HCD), the Division of the State Architect/Access and Compliance (DSA/AC), and the State Office of Statewide Health, Planning and Development (OSHPD), The Office of the State Fire Marshal: all as published by the International Code Council. One copy of all of the above publications is on file for public inspection and is hereby adopted with the same force and affect as though set out herein in full.

B. By amending Section 14.04.015 to read as follows:

14.04.015 - Section 105.2.1 is added to Chapter 1 Division II Section 105.2 of the California Building Code to read as follows:

A zoning permit may be required for items exempted from building permit requirements under Chapter 1 Division II Section 105.2. Exempted work shall not violate any provisions of this code, Federal, State, Local laws, or regulations.

C. By deleting section 14.04.020 in its entirety.

D. By amending Section 14.04.030 to read as follows:

14.04.030 Violations.

All sections in the codes referenced in Section 14.04.010 herein pertaining to violations are amended in their entirety to read as follows:

It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, or demolish, equip, use, occupy, or maintain any building or structure in the City, or cause same to be done, contrary to or in violation of any of the provisions of this chapter. Any person, firm, or corporation violating any of the provisions of this Ordinance, shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Ordinance is committed, continued, or permitted, and upon conviction of any such violation such persons shall be punished by a fine of not more than one thousand dollars (\$1,000) or by imprisonment for not more than one (1) year, or by both such fine and imprisonment.

In addition to the above penalty provisions, violation of any of the provisions of this chapter may be subject to the administrative proceedings set forth in Chapter 1.25 of this code.

E. By amending Section 14.04.040 to read as follows:

14.04.040 Board of appeals.

All sections in the respective codes pertaining to the Board of Appeals are hereby amended in their entirety to read as follows:

In order to hear and decide appeals or orders and determine the suitability of alternate materials and methods of construction and to provide for reasonable interpretations of the provisions of these Codes, there shall be and there is hereby created a Board of Appeals, composed of the Mayor and the City Council.

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

The City Council may prescribe by resolution, to employ at the cost and expense of the City, such qualified individuals as the Board, in its discretion, may deem reasonably necessary in order to assist it in its investigations and in making its findings and decisions.

F. By amending Section 14.04.050 to read as follows:

14.04.050 Fees.

The council shall by resolution adopt a schedule of fees for the permits issued pursuant hereto.

G. By amending Section 14.04.080 to read as follows:

14.04.080 Moved building.

Section 3408 of the California Building Code is amended by adding the following:

Before a permit is issued, the building-mover shall furnish and file with the City Clerk, a good and sufficient bond in the principal sum of \$5,000.00 in favor of the City of Pasadena for the benefit of any person, firm or corporation who may be damaged directly by the moving of said building or structure, provided that any person, firm or corporation engaged in the business of moving buildings may file with the City Clerk a surety bond in the sum of \$10,000.00 indemnifying the City for the purposes, and in that event such person, firm or corporation need not file the \$5,000.00 bond herein above required for any single moving operation to read as follows:

H. By making amendments to the California Building Code by adding Sections 14.04.100 through 14.04.335 as follows:

14.04.100 - Changes and additions to the adopted codes.

Pursuant to the Health and Safety Code Sections 17358.5 and 17958.7, the City establishes the following local modifications. The requisite findings if applicable for such requirements are set forth in the ordinance fact sheet accompanying this ordinance.

14.04.102 - Section 701A.1 of the 2010 edition of the California Building Code is amended to read as follows:

Scope. This chapter applies to building materials, systems and /or assemblies used in the exterior design and construction of new buildings, additions and alterations located within a Wildland-Urban Interface Fire Area as defined in Section 702A.

14.04.105 - Section 1401.1 of the California Building Code is amended to read as follows:

Scope. The provisions of this chapter shall establish the minimum requirements for exterior walls; exterior wall coverings; exterior wall openings; exterior windows doors; architectural trim; balconies and similar projections; and bay and oriel windows. No wood covering material shall be installed on any structure located in the very high, high and moderate fire hazard zones as identified by the Pasadena Fire Department.

Exception: In the moderate fire hazard zone, the fire code official may, upon a showing of good cause and necessity, approved the use of fire-resistive wood as part of class A listed assemblies, and may require additional mitigation as warranted, for the repair or maintenance of existing structures.

14.04.110 - Section 1505.1 of the California Building Code is amended to read as follows:

General. Roof assemblies shall be divided into the classes defined below. Class A and B roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D 2898. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building. All roof assemblies and roof coverings shall be of not less than Class B. No wood roof covering material shall be installed on any structure located in the very high, high and moderate fire hazard zones as identified by the Pasadena Fire Department.

Exception: In the moderate fire hazard zone, the fire code official may, upon a showing of good cause and necessity, approved the use of fire-resistive wood as part of class A listed assemblies, and may require additional mitigation as warranted, for the repair or maintenance of existing structures.

14.04.115 - Section 1505.6 of the 2010 Edition of the California Building Code is amended to read as follows:

Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes shall not be installed in the very high, high and moderate fire zones. Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A or B roofs.

Fire-retardant-treated wood shakes and shingles shall comply with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7(j). Each bundle shall bear labels from an ICC accredited quality control agency identifying their roof-covering classification and indicating their compliance with ICC-ES EGI07 and with the weathering requirements contained in Health and Safety Code Section 13132.7(j).

Health and Safety Code Section 13132.7(j). No wood roof covering materials shall be sold or applied in this state unless both of the following conditions are met:

- (1) The materials have been approved and listed by the State Fire Marshal as complying with the requirements of this section.
- (2) The materials have passed at least five years of the 10-year natural weathering test. The 10-year natural weathering test required by this subdivision shall be conducted in accordance with standard 15-2 of the 1994 edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal.

Exception: In the moderate fire hazard zone, the fire code official may, upon a showing of good cause and necessity, approved the use of fire-resistive wood as part of class A listed assemblies, and may require additional mitigation as warranted, for the repair or maintenance of existing structures.

14.04.120 - Section 1510 of the California Building Code is amended by adding a section 1510.7 entitled roof sheathing to read as follows:

When finish roofing material is removed to the existing open space sheathing, a minimum of 3/8-inch thick plywood sheathing shall be installed. The new sheathing shall comply with the requirements of the California Building Code. The sheathing shall be installed such that the edges align over rafters and individual spaced sheathing boards. The sheathing shall be attached to the existing spaced sheathing with 6d common nails at 6 inches (147mm) on center at supported edges and 6d common nails at 12 inches (294mm) on center at intermediate supports.

14.04.122 - Section 1613.6.1 of the California Building code is amended to read as follows:

Assumption of flexible diaphragm. The following text is added at the end of Section 12.3.1.1 of ASCE 7:

Diaphragms constructed of wood structural panels or untopped steel decking shall also be permitted to be idealized as flexible, provided all of the following conditions are met:

1. Toppings of concrete or similar materials are not placed over wood structural panel diaphragms except for nonstructural toppings no greater than 1 ½ inches (38 mm) thick.
2. Each line of vertical elements of the lateral-force-resisting system complies with the allowable story drift of Table 12.12-1.
3. Vertical elements of the lateral-force-resisting system are light-framed walls sheathed with wood structural panels rated for shear resistance or steel sheets.
4. Portions of wood structural panel diaphragms that cantilever beyond the vertical elements of the seismic-force-resisting system are designed in accordance with Section 4.2.5.2 of the AF&PA SDPWS.

14.04.125 - Equation 16-44 of section 1613.7 of the 2010 Edition of the California Building Code is amended to read as follows:

(Equation 16-44)
$$\delta_M = C_d \delta_{max}$$

where:

C_d = Deflection amplification factor in Table 12.2-1 of ASCE 7.

δ_{max} = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

14.04.130 - Section 1613.10 is added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.10 ASCE 7, 12.2.3.1, Exception 3. Modify ASCE 7 Section 12.2.3.1

Exception 3 to read as follows:

3. Detached one and two family dwellings up to two stories in height of light frame construction.

14.04.135 Section 1613.12 is added to Chapter 16 of the 2010 Edition of California Building Code to read as follows:

1613.12 ASCE 7, Section 12.8.7. Modify ASCE 7 Section 12.8.7 by amending Equation 12.8-16 as follows:

$$\theta = P_x \Delta / (V_x h_{sx} C_d)$$
 (Equation 12.8-16)

14.04.140 - Section 1613.13 is added to Chapter 16 of the 2010 Edition of the California Building Code to read as follows:

1613.11 ASCE 7, 12.11.2.2.3. Modify ASCE 7 Section 12.11.2.2.3 to read as follows:

12.11.2.2.3 Wood Diaphragms. In wood diaphragms, the continuous ties shall be in addition to the diaphragm sheathing. Anchorage shall not be accomplished by use of toe nails or nails subject to withdrawal nor shall wood ledgers or framing be used in cross-grain bending or cross-grain tension. The diaphragm sheathing shall not be considered effective as providing ties or struts required by this section.

For structures assigned to Seismic Design Category D, E or F, wood diaphragms supporting concrete or masonry walls shall comply with the following:

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous cross-ties.
2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear.

14.04.142 - Section 1704.4 of the 2010 Edition of the California Building Code is amended to read as follows:

1704.4 Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and Table 1704.4.

Exceptions: Special inspection shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa).
2. Continuous concrete footings supporting walls of buildings three stories or less in height that are fully supported on earth or rock where:
 - 2.1. The footings support walls of light-frame construction;
 - 2.2. The footings are designed in accordance with Table 1805.4.2; or
 - 2.3. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the construction documents or used in the footing construction.

3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).

4. Concrete patios, driveways and sidewalks, on grade.

14.04.145 - Section 1704.8 of the 2010 Edition of the California Building Code is amended to read as follows:

1704.8 Driven deep foundations and connection grade beams. Special inspections shall be performed during installation and testing of driven deep foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

14.04.150 - Section 1704.9 of the 2010 Edition of the California Building Code is amended to read as follows:

1704.9 Cast-in-place deep foundations and connection grade beams. Special inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1704.9. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

14.04.155 Section 1705.3 of the 2010 Edition of the California Building Code is amended to read as follows:

1705.3 Seismic resistance. The statement of special inspections shall include seismic requirements for cases covered in Sections 1705.3.1 through 1705.3.5.

Exception: Seismic requirements are permitted to be excluded from the statement of special inspections for structures designed and constructed in accordance with the following:

1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, S_{DS} , as determined in Section 1613.5.4, does not exceed 0.5g; and the height of the structure does not exceed 35 feet (10 668 mm) above grade plane; or

2. The structure is constructed using a reinforced masonry structural system or reinforced concrete structural system; the design spectral response acceleration at

short periods, S_{DS} , as determined in Section 1613.5.4, does not exceed 0.5g, and the height of the structure does not exceed 25 feet (7620 mm) above grade plane; or

3. Detached one- or two-family dwellings not exceeding two stories above grade plane, provided the structure is not assigned to Seismic Design Category D, E or F and does not have any of the following plan or vertical irregularities in accordance with Section 12.3.2 of ASCE 7:

- 3.1 Torsional irregularity.
- 3.2 Nonparallel systems.
- 3.3 Stiffness irregularity—extreme soft story and soft story.
- 3.4 Discontinuity in capacity—weak story.

14.04.160 Section 1710.1 of the 2010 Edition of the California Building Code is amended to read as follows:

1710.1 General. Where required by the provisions of Section 1710.2 or 1710.3, the owner shall employ a structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design, or
2. A registered design professional designated by the registered design professional responsible for the structural design.

Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of structural observations.

The owner or owner's representative shall coordinate and call a preconstruction meeting between the structural observer, contractors, affected subcontractors and special inspectors. The structural observer shall preside over the meeting. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the report submitted to the building official.

Observed deficiencies shall be reported in writing to the owner or owner's representative, special inspector, contractor and the building official. Upon the form prescribed by the building official, the structural observer shall submit to the building official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the building official.

14.04.165 Section 1807.1.4 of the 2010 Edition of the California Building Code is amended to read as follows:

1807.1.4 Permanent wood foundation systems. Permanent wood foundation systems shall be designed and installed in accordance with AF&PA PWF. Lumber and plywood shall be treated in accordance with AWWA U1 (Commodity Specification A, Use Category 4B and Section 5.2) and shall be identified in accordance with Section 2303.1.8.1. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E or F.

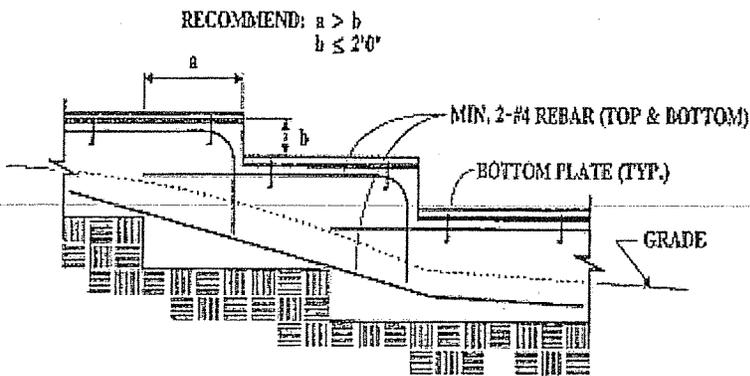
14.04.170 Section 1807.1.6 of the 2010 Edition of the California Building Code is amended to read as follows:

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 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.

14.04.175 Section 1809.3 of the 2010 Edition of the California Building Code is amended to read as follows:

1809.3 Stepped footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures assigned to Seismic Design Category D, E or F, the stepping requirement shall also apply to the top surface of grade beams supporting walls. Footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure 1809.3.



STEPPED FOUNDATIONS

FIGURE 1809.3
STEPPED FOOTING

14.04.180 Section 1809.7 and Table 1809.7 of the 2010 Edition of the California Building Code is amended to read as follows:

1809.7 Prescriptive footings for light-frame construction. Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7. Prescriptive footings in Table 1809.7 shall not exceed one story above grade plane for structures assigned to Seismic Design Category D, E or F.

TABLE 1809.7
PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME CONSTRUCTION a, b, c, d, e

NUMBER OF FLOORS SUPPORTED BY THE FOOTING f	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

Depth of footings shall be in accordance with Section 1809.4.

The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing. Not Adopted.

See Section 1908 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.

For thickness of foundation walls, see Section 1807.1.6.

Footings shall be permitted to support a roof addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

14.04.185 Section 1809.12 of the 2010 Edition of the California Building Code is amended to read as follows:

1809.12 Timber footings. Timber footings shall be permitted for buildings of Type V construction and as otherwise approved by the building official. Such footings shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B). Treated timbers are not required where placed entirely below permanent water level, or where used as capping for wood piles that project above the water level over submerged or marsh lands. The compressive stresses perpendicular to grain in untreated timber footing supported upon treated piles shall not exceed 70 percent of the allowable stresses for the species and grade of timber as specified in the AF&PA NDS. Timber footings shall not be used in structures assigned to Seismic Design Category D, E or F.

14.04.190 Section 1810.3.2.4 of the 2010 Edition of the California Building Code is amended to read as follows:

1810.3.2.4 Timber. Timber deep foundation elements shall be designed as piles or poles in accordance with AF&PA NDS. Round timber elements shall conform to ASTM D 25. Sawn timber elements shall conform to DOC PS-20. Timber shall not be used in structures assigned to Seismic Design Category D, E or F.

14.04.195 Section 1908.1 is amended to read as shown below and Section 1908.1.11 thru 1908.1.14 is added to Chapter 19 of the 2010 California Building Code to read as follows:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.1.14

1908.1.11 ACI 318, Section 21.4.4.1. Modify ACI 318 Section 21.4.4.1 as follows:

Where the calculated point of contra flexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 21.6.4.1, Items (a) through (c), over the full height of the member.

1908.1.12 ACI 318, Section 21.6.4. Modify ACI 318 by adding Section 21.6.4.8 as follows:

21.6.4.8 $P < P_n$ — At any section where the design strength, ϕP_n , of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.3.4.1 and 21.4.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment

components may be assumed to be of opposite sign. For the determination of the design strength, ϕP_n , of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

1908.1.13 ACI 318, Section 21.9.4. Modify ACI 318 by adding Section 21.9.4.6 as follows:

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.

1908.1.14 ACI 318, Section 21.11.6. Modify ACI 318 section 21.11.6 by adding the following:

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or 6 db thick, where db is the diameter of the largest reinforcement in the topping slab.

14.04.200 Section 1908.1.2 of the 2010 Edition of the California Building Code is amended to read as follows:

1908.1.2 ACI 318, Section 21.1.1. Modify ACI 318, Sections 21.1.1.3 and 21.1.1.7 as follows:

21.1.1.3 – Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with Section 1908.1.8 of the International Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 – Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic-force-resisting system, regardless of the Seismic Design Category:

- (a) Ordinary moment frames shall satisfy 21.2.
- (b) Ordinary reinforced concrete structural walls and ordinary precast structural walls need not satisfy any provisions in Chapter 21.
- (c) Intermediate moment frames shall satisfy 21.3.
- (d) Intermediate precast structural walls shall satisfy 21.4.
- (e) Special moment frames shall satisfy 21.5 through 21.8.
- (f) Special structural walls shall satisfy 21.9.
- (g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7. Concrete tilt-up wall panels classified as intermediate precast structural wall system shall satisfy 21.9 in addition to 21.4.2 and 21.4.3 for structures assigned to Seismic Design Category D, E or F.

14.04.205 Section 1908.1.3 of the 2010 Edition of the California Building Code is amended to read as follows:

1908.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6 and 21.4.7 to read as follows:

21.4.3 – Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 – Elements of the connection that are not designed to yield shall develop at least 1.5 Sy.

21.4.5 – Wall piers in Seismic Design Category D, E or F shall comply with Section 1908.1.4 of this Code.

21.4.6 – Wall piers not designed as part of a moment frame in buildings assigned to Seismic Design Category C shall have transverse reinforcement designed to resist the shear forces determined from 21.3.3. Spacing of transverse reinforcement shall not exceed 8 inches (203 mm). Transverse reinforcement shall be extended beyond the pier clear height for at least 12 inches (305 mm).

Exceptions:

Wall piers that satisfy 21.13.

Wall piers along a wall line within a story where other shear wall segments provide lateral support to the wall piers and such segments have a total stiffness of at least six times the sum of the stiffnesses of all the wall piers.

21.4.7 – Wall segments with a horizontal length-to-thickness ratio less than 2.5 shall be designed as columns.

14.04.210 Section 1908.1.8 of the 2010 Edition of the California Building Code is amended to read as follows:

1908.1.15 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 – Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 – Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

(a) Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement per cubic yard.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

(c) Plain concrete footings supporting walls are permitted provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

1. In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings with at least two, 1 top 1 bottom, continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

14.04.215. Section 2205.4 is added to Chapter 22 of the 2010 Edition of the California Building Code to read as follows:

2205.4 AISC 341, Part I, section 13.2, Members. Add a new section as follows:
AISC 341, 13.2f – Member Types. The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of 3000 psi (20.7 MPa) at 28 days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.

14.04.220 Section 2305.4 is added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

2305.4 Quality of Nails. In seismic design category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. No clipped head or box nails permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

14.04.225 Section 2305.5 is added to Chapter 23 of the 2010 Edition of the California Building Code to read as follows:

2305.3.7.1 Hold-down connectors. In seismic design category D, E or F, Hold-down connectors shall be designed to resist shear wall overturning moments using approved

cyclic load values or 75 percent of the allowable earthquake load values that do not consider cyclic loading of the product. Connector bolts into wood framing require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-downs shall be re-tightened just prior to covering the wall framing.

14.04.230 Section 2306.7 of the 2010 Edition of the California Building Code is amended to read as follows:

2306.7 Shear walls sheathed with other materials. Shear walls sheathed with gypsum lath, Portland cement plaster or gypsum sheathing or gypsum board shall be designed and constructed in accordance with AF&PA SDPWS. Shear walls sheathed with these materials are permitted to resist horizontal forces using the allowable shear capacities set forth in table 2306.7. Shear walls sheathed with Portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall not be used to resist seismic forces in structures assigned to seismic design category E or F. Shear walls sheathed with lath, plaster or gypsum board shall not be used below the top level in a multi-level building.

14.04.240 Section 2308.12.2 of Chapter 23 of the 2010 Edition of the California Building Code is amended to read as follows:

2308.12.2 Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the basement.

Exception: Stone and masonry veneer is permitted to be used in the first story above grade plane in Seismic Design Category D, provided the following criteria are met:

Type of brace in accordance with Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2306.4.1 shall be a minimum of 350 plf (5108 N/m).

The bracing of the first story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 45 percent of the braced wall line.

Hold-down connectors shall be provided at the ends of braced walls for the first floor to foundation with an allowable design of 2,100 pounds (9341 N).

Cripple walls shall not be permitted.

5. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness, shall conform to the requirements of Chapter 14 and shall not extend more than 5 feet (1524 mm) above the first story finished floor.

14.04.245 Section 2304.9.1 and Table 2304.9.1 of the 2010 Edition of the California Building Code are amended to read as follows:

2304.9.1 Fastener requirements. Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.9.1. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the building official.

Add new footnote q to Table 2304.9.1.

q. Staples shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

14.04.250 - Section 2308.12.5 of the 2010 Edition of the California Building Code are amended to read as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the building official.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum 24 inch (6096 mm) intervals along the top plate of discontinuous vertical framing.

14.04.255 - Section 3109.1 of the 2010 Edition of the California Building Code is amended to read as follows:

General: Swimming pools and other bodies of water over 18 inches deep shall comply with the requirements of this section and other applicable sections of this code.

14.04.256 - Section 3109.2 of the 2010 Edition of the California Building Code is 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.

14.04.257 - Section 3109.4.4.2.1 is added to the 2010 Edition of the California Building Code to read as follows:

Fences required: In addition to the requirements in the California Building Code, a barrier in compliance with section 3109.4.4.3 of the CBC is required to isolate the pool or any other bodies of water over 18 inches deep from neighboring properties and public ways

Exception: When the swimming pool or any other bodies of water over 18 inches deep is fully enclosed around its perimeter by an enclosure complying to California Building Code Section 3109.4.4.3

14.04.258 - Section 8-408 of the 2010 Edition of the California Historical Building Code is amended by adding the following:

4. The use of wood on the exterior side of exterior walls shall be prohibited in the Extreme, high and moderate fire hazard severity zones as identified by the Pasadena Fire Department.

Exception: In the moderate fire hazard severity zone, the fire code official may, upon a showing of good cause and necessity, approved the use of fire-resistive wood as part of class A listed assemblies, and may require additional mitigation as warranted, for the repair or maintenance of existing structures.

14.04.260 - Section R301.1.3.2 of the 2010 Edition of the California Residential Code is amended to read as follows:

R301.1.3.2 Woodframe structures. The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height located in Seismic Design Category A, B or C . Notwithstanding other sections the law, the law establishing these provisions is found in Business and Professions Code Section 5537 and 6737.1.

The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than one story in height located in Seismic Design Category D0, D1, D2 or E.

14.04.265 - Section R301.1.4 is added to Chapter 3 of the 2010 California Residential Code to read as follows:

R301.1.4 Seismic design provisions for buildings constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope). The design and construction of new buildings and additions to existing buildings when constructed on or

into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613.15 of the California Building Code.

14.04.270 - Section R401.1 of the 2010 Edition of the California Residential Code is amended to read as follows:

R401.1 Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15 240 mm).

Wood foundations in Seismic Design Category D0, D1 or D2 shall not be permitted. Exception: In non-occupied, single-story, detached storage sheds and similar uses other than carport or garage, provided the gross floor area does not exceed 200 square feet, the plate height does not exceed 12 feet in height above the grade plane at any point, and the maximum roof projection does not exceed 24 inches.

14.04.275 - Sections R403.1.2, R403.1.3, R403.1.5 of the 2010 Edition of the California Residential Code are amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D0, D1 and D2. The braced wall panels at exterior walls of buildings located in Seismic Design Categories D0, D1 and D2 shall be supported by continuous footings. All required interior braced wall panels in buildings shall also be supported by continuous footings.

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

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

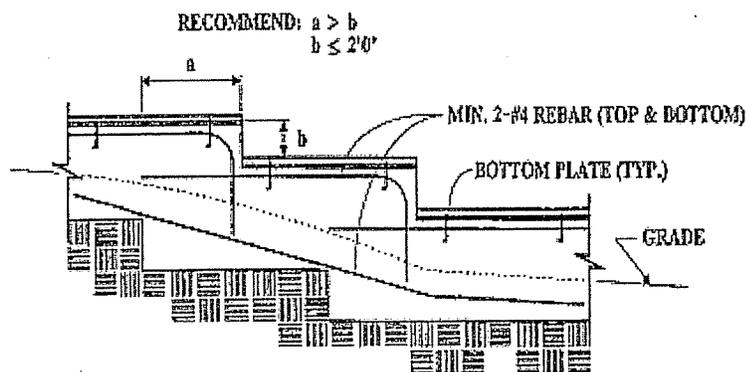
In Seismic Design Categories D0, D1 and D2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing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

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

Exception: In detached one- and two-family dwelling located in seismic design category A, B or C which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting walls and isolated plain concrete footings supporting columns or pedestals are permitted.

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures located in Seismic Design Categories D0, D1 or D2, stepped footings shall be reinforced with four 1/2-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top and bottom of the footings as shown in Figure R403.1.5.



STEPPED FOUNDATIONS

FIGURE R403.1.5
STEPPED FOOTING

14.04.280 - Section R404.2 of the 2010 Edition of the California Residential Code is amended to read as follows:

R404.2 Wood foundation walls. Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the

details shown in Figures R403.1(2) and R403.2(3). Wood foundation walls shall not be used for structures located in Seismic Design Category D0, D1 or D2.

14.04.285 - Lines 34 thru 37 of Table R602.3(1) of the 2010 Edition of the California Residential Code are amended to read as follows:

Staples shall not be used on other wall sheathing as fasteners in table R602.3(1),

14.04.290 - Table R602.3(2) of the 2010 Edition of the California Residential Code is amended to read as follows:

Staples shall not be used to fasten wood structural panels subfloor, roof and wall sheathing to framing and particleboard wall sheathing to framing.

14.04.295 - Figure R602.10.3.2 of the 2010 Edition of the California Residential Code is amended to read as follows:

Minimum 15/32" thick wood structural panel sheathing on one face shall be required. Galvanized box nails shall not be used.

14.04.300 - Figure R602.10.3.3 of the 2010 Edition of the California Residential Code is amended to read as follows:

Portal frame with hold downs at detached garage door openings shall be double portal frame (two braced wall panels) type at both ends. Single portal frame shall not be used. Minimum width of portal frame shall be 24 inches with 15/32" thick wood structural panel sheathing fastened to the frame.

14.04.305 - Section R602.10.7.1 of the 2010 Edition of the California Residential Code is deleted in its entirety.

14.04.310 - Section R703.1.1.1 is added to the 2010 Edition of the California Residential code to read as follows:

All exterior finishes in the very high, high and moderate fire zones must comply with Pasadena Municipal Code section 14.04.105.

14.04.315 - Section R902.1.1.1 is added to the 2010 Edition of the California Residential code to read as follows:

All roofing material in the very-high, high and moderate fire hazard severity zone must comply with Pasadena Municipal Code sections 14.04.110 and 14.04.115.

California Green Building Standards Code

14.04.500 - Section 101.3 of the 2010 edition of the California Green Buildings Standards Code is amended to read as follows:

Section 101.3 Scope. The provisions of this code shall apply to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure, additions or alterations to existing buildings, unless other wise indicated in this code, throughout the State of California.

It is not the intent that this code substitute or be identified as meeting the certification requirements of any green building program.

14.04.502 - Section 303.1.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 303.1.1 Tenant improvements. The provisions of this code shall apply to all tenant or occupant improvements to a project.

14.04.504 - Section 307 is added to the 2010 edition of the California Green Building Standards Code is to read as follows:

307.1 Buildings required to comply with Tier 1 include the following:

1. municipal buildings of 5,000 square feet or more of new construction
2. non-residential buildings with 25,000 square feet or more of new construction
3. tenant improvements of 25,000 square feet or more
4. mixed use and multi-family residential buildings four stories in height or more

307.2 Buildings required to comply with Tier 2 include the following:

1. new municipal buildings
2. municipal renovations of 15,000 square feet or more
3. commercial type buildings of over 50,000 square feet or more

Where there are practical difficulties involved in complying with the threshold levels of a tier, the enforcing agency may grant modifications for individual cases. The enforcing agency shall first find that a special individual reason makes the strict letter of the tier impractical and that modification is in conformance with the intent and purpose of the measure. The details of any action granting modification shall be recorded and entered in the files of the enforcing agency.

14.04.506 - Section 4.106.5 is added to the 2010 edition of the California Green Building Standards Code as follows:

Low Slope Cool Roof. For new buildings and additions or alterations to existing roof framing, roofing materials for roof slopes less than or greater than 2:12 shall have a minimum 3-year aged solar reflectance equal to or greater than 0.55. If CRRC testing for 3-year aged reflectance is not available for any roofing products, the 3-year aged value shall be determined using the Cool Roof Rating Council (CRRC) certified initial value using the equation $R_{aged} = [0.2 + 0.7[p_{initial} - 0.2]]$, Where $p_{initial}$ = the initial Solar Reflectance. Roofing materials shall also have a CRRC initial or 3-year aged thermal emittance equal to or greater than 0.75.

Solar Reflectance Index (SRI) equal to or greater than 64 may be used as an alternative to compliance with the 3-year aged solar reflectance values and thermal emittance.

Solar reflectance and thermal emittance may also be certified by other supervisory entities approved by the Commission pursuant to Title 24, Part 1, Section 10-113.

Residential Mandatory Energy Efficiency

14.04.508 - Section 4.201.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 4.201.1 Scope. All newly constructed buildings, additions and alterations to existing buildings, including the installation of energy consuming systems or elements of the building envelope, shall achieve at least a 15% reduction in energy usage when compared to the State's mandatory energy efficiency standards.

14.04.510 - Section 4.202 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 4.202 Duct leakage. Perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow.

14.04.512 - Section 4.203 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 4.203 Whole house fans. Install a whole-house fan with insulated louvers or an insulated cover.

14.04.514 - Section 4.204 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 4.204 Water heating equipment. When water heaters are installed or replaced, they shall comply with this section.

4.204.1 Tank type water heater efficiency. The Energy Factor (EF) for a gas-fired storagewater heater is higher than .60.

4.204.2 Tankless water heater efficiency. The Energy Factor (EF) for a gas-fired tankless water heater is .80 or higher.

14.04.516 - Section 4.205 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Future access for solar system. For new buildings or when an existing service is relocated to new construction, a minimum one-inch (25.4 mm) electrical conduit shall be provided from the electrical service equipment to an accessible location in the attic or other location approved by the enforcing agency.

14.04.518 - Section 4.406.2 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 4.406.2 Flashing details. Provide flashing details on the building plans which comply with accepted industry standards or manufacturer's instructions. Details are shown on house plans at all of the following locations:

1. Around windows and doors
2. Roof valleys
3. Deck connections to the structure
4. Roof-to-wall intersections
5. Chimneys to roof intersections
6. Drip caps above windows and doors with architectural projections

14.04.520 - Section 4.503.1 of the 2010 edition of the California Green Building Standards Code shall be amended to read as follows:

Section 4.503.1 General. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with the rules of the Southern California Air Quality Management District and applicable local ordinances.

14.04.522 - Section 4.303.4 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Meters. Separate meters or metering devices shall be installed for the uses described in Sections 4.303.4.1 through 4.303.4.3.

4.303.4.1 Separate meters or sub-meters shall be installed for each individual leased, rented or other tenant space within the building projected to consume more than 50 gal/day.

4.303.4.2 Excess consumption. Any building within a project or space within a building that is projected to consume more than 500 gal/day.

4.303.4.3 As determined by the local utility distributor

14.04.524 - Section 5.106.11 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

14.04.526 Section 5.106.11 Low Slope Cool Roof. For new buildings and additions or alterations to existing roof framing, roofing materials for roof slopes less than or greater than 2:12 shall have a minimum 3-year aged solar reflectance equal to or greater than 0.55. If CRRC testing for 3-year aged reflectance is not available for any roofing products, the 3-year aged value shall be determined using the Cool Roof Rating Council (CRRC) certified initial value using the equation $R_{aged} = [0.2 + 0.7(p_{initial} - 0.2)]$, Where $p_{initial}$ = the initial Solar Reflectance. Roofing materials shall also have a CRRC initial or 3-year aged thermal emittance equal to or greater than 0.75.

Solar Reflectance Index (SRI) equal to or greater than 64 may be used as an alternative to compliance with the 3-year aged solar reflectance values and thermal emittance.

Solar reflectance and thermal emittance may also be certified by other supervisory entities approved by the Commission pursuant to Title 24, Part 1, Section 10-113.

14.04.526 - Section 5.201.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 5.201.1 Scope. All newly constructed buildings, additions and alterations to existing buildings, including the new installation of energy consuming systems or elements of the building envelope, shall achieve at least a 15% reduction in energy usage when compared to the State's mandatory energy efficiency standards.

14.04.528 - Section 5.202.1 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 5.202.1 Air distribution system duct leakage sealing. All duct systems shall be sealed to a leakage rate not to exceed 6 percent of the fan flow if the duct system:

A5.207.2.5.1 Is connected to a constant volume, single zone, air conditioners, heat pumps or furnaces; and

A5.207.2.5.2 Serves less than 5,000 square feet of floor area; and

A5.207.2.5.3 Has more than 25 percent duct surface area located in one or more of the following spaces:

1. Outdoors; or

2. In a space directly under a roof where the U-factor of the roof is greater than the U-factor of the ceiling; or

Exception: Where the roof meets the requirements of Section 143(a)1C of Title 24, Part 6.

3. In a space directly under a roof with fixed vents or openings to the outside or unconditioned spaces; or

4. In an unconditioned crawlspace; or

5. In other unconditioned spaces.

The leakage rate shall be confirmed through field verification and diagnostic testing, in accordance with procedures set forth in the Reference Nonresidential Appendix NA1 of the California Energy Commission 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.

14.04.530 - Section 5.203.1 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 5.203.1 Future access for solar system. For new buildings or when an existing service is relocated to new construction, install conduit from the building roof or eave to a location within the building identified as suitable for future installation of a charge controller (regulator) and inverter.

14.04.532 - Section 5.204.1 is added to the 2010 edition of the California Green Building Standards Code to read as follows:

Section 5.204.1 Steel framing. Design steel framing for maximum energy efficiency. Techniques for avoiding thermal bridging in the envelope include:

1. Exterior rigid insulation;
2. Punching large holes in the stud web without affecting the structural integrity of the stud;
3. Spacing the studs as far as possible while maintaining the structural integrity of the structure; and
4. Detailed design of intersections of wall openings and building intersections of floors, walls and roofs.

14.04.534 - Section 5.303.1.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 5.303.1.1 Separate submeters shall be installed as follows:

1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day.
2. For spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop projected to consume more than 100 gal/day.
3. As determined by the local utility distributor.

14.04.536 - Section 5.410.2 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 5.410.2 Commissioning. For new buildings, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements
2. Basis of design
3. Commissioning measures shown in the construction documents
4. Commissioning plan
5. Functional performance testing
6. Documentation and training
7. Commissioning report

All building systems and components covered by Title 24, Part 6, as well as process equipment and controls, and renewable energy systems shall be included in the scope of the Commissioning Requirements.

14.04.538 - Section 5.503.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section 5.503.1 General. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with the rules of the Southern California Air Quality Management District and applicable local ordinances.

14.04.540 - Section A4.203.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A4.203.1 Energy performance. Using an Alternative Calculation Method (ACM) approved by the California Energy Commission, calculate each building's energy and CO₂ emissions, and compare it to the standard or "budget" building to achieve the following:

- Tier 1. Exceed the California Energy Code based on the 2008 energy standards requirements by 20%.
 - Tier 2. Exceed the California Energy Code based on the 2008 energy standards requirements by 30%.
- Field verify and document the measures and calculations used.

14.04.542. - Section A207.2. of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A4.207.2 Commissioning. Tier 1 and Tier 2 projects shall comply with this section and follow steps in Section A4.207.2.1A commissioning plan shall be developed to document specified building components meet the project design and performance goals.

14.04.544. - Section A.207.8 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.546. - Section A.207.9 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.548. - Section A.208.1 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.550. - Section A.208.2 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.552. - Section A4.211.4 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.554. - Section A4.407.3 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.556. - Section A4.601.4.2 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A4.601.4.2 Prerequisite and elective measures for Tier 1.
In addition to the mandatory measures, compliance with the following prerequisite and as many additional elective measures from Appendix A4 to achieve an equivalent 40 LEED points is also required to achieve Tier 1 status:

1. From Division A4.1, Planning and Design.
 - 1.1. Comply with the topsoil protection requirements in Section A4.106.2.3.
 - 1.2. Comply with the 20 percent permeable paving requirements in Section A4.106.4.
 - 1.3. Comply with the cool roof requirements in Section A4.106.5.
 - 1.4. Comply with at least two elective measures selected from Division A4.1.
2. From Division A4.2, Energy Efficiency.
 - 2.1. Exceed the *California Energy Code* requirements, based on the 2008 Energy Efficiency Standards by 15 percent.
 - 2.2. Comply with at least four elective measures

- selected from Division A4.2.
 - 3. From Division A4.3, Water Efficiency and Conservation.
 - 3.1. Comply with the reduced flow rate for kitchen sink faucets in Section A4.303.1
 - 3.2. Comply with the Tier 1 potable water use reduction for landscape irrigation design in Section A4.304.4.
 - 3.3. Comply with at least one elective measure selected from Division A4.3.
 - 4. From Division A4.4, Material Conservation and Resource Efficiency.
 - 4.1. Comply with the 20 percent cement reduction requirements in Section A4.403.2.
 - 4.2. Comply with the 10 percent recycled content requirements in Section A4.405.3.
 - 4.3. Comply with the 65 percent reduction in construction waste in Section A4.408.1.
 - 4.4. Comply with at least two elective measures selected from Division A4.4.
 - 5. From Division A4.5, Environmental Quality.
 - 5.1. Comply with the 80 percent resilient flooring systems requirements in Section A4.504.2.
 - 5.2. Comply with the thermal insulation requirements for Tier 1 in Section A4.504.3.
 - 5.3. Comply with at least one elective measure selected from Division A4.5.
- Note:** The Residential Occupancies Application Checklist contained in Section A4.602 may be used to show which elective measures are selected.

14.04.558. - Section A4.601.5.2 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A4.601.5.2 Prerequisite and elective measures for Tier 2. In addition to the mandatory measures, compliance with the following prerequisite and as many additional elective measures from Appendix A4 achieve an equivalent 50 LEED points is also required to achieve Tier 2 status.

- 1. From Division A4.1, Planning and Design.
 - 1.1 Comply with the topsoil protection requirements for Tier 1 and Tier 2 in section A4.106.2.3.
 - 1.2 Comply with the 30 percent permeable paving requirements in Section A4.106.4.
 - 1.3 Comply with the cool roof requirements in Section A4.106.5.
 - 1.4 Comply with at least four elective measures selected from Division A4.1.
- 2. From Division A4.2, Energy Efficiency.

- 2.1 Exceed the *California Energy Code* requirements, based on the 2008 Energy Efficiency Standards by 30 percent.
- 2.2 Comply with at least six elective measures selected from Division A4.2.
3. From Division A4.3, Water Efficiency and Conservation.
 - 3.1 Comply with the Tier 1 reduced flow rate for kitchen sink faucets in Section A4.303.1.
 - 3.2 Comply with the Tier 2 dishwasher requirements in Section A4.303.1.
 - 3.3 Comply with the Tier 2 potable water use reduction for landscape irrigation design in Section A4.304.4.
 - 3.4 Comply with at least two elective measures selected from Division A4.3.
4. From Division A4.4, Material Conservation and Resource Efficiency.
 - 4.1 Comply with the 25 percent cement reduction requirements in Section A4.403.2.
 - 4.2 Comply with the 15 percent recycled content requirements in Section A4.405.3.
 - 4.3 Comply with the 75 percent reduction in construction waste in Section A4.408.1.
 - 4.4 Comply with at least four elective measures selected from Division A4.4.
5. From Division A4.5, Environmental Quality.
 - 5.1 Comply with the 90 percent resilient flooring systems requirements in Section A4.504.2.
 - 5.2 Comply with the thermal insulation requirements for Tier 1 and Tier 2 in Section A4.504.3.
 - 5.3 Comply with at least one elective measure selected from Division A4.5.

Note: The Residential Occupancies Application Checklist contained in Section A4.602 may be used to show which elective measures are selected.

14.04.560. - Section A4.602 of the 2010 edition of the California Green Building Standards Code is added to read as follows:

Section A4.602 All sections referenced in table A4.602 shall reflect amended sections.

14.04.562. - Section A5.106.3 of the California Green Building Standards Code shall be amended to read as follows:

Section A5.106.3 Low impact development (LID). New buildings and additions under Tier 1 and Tier 2 shall comply with this section. Reduce peak runoff in compliance with Section 5.106.3.1. Employ at least two of the following methods or other best management practices to allow rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses. LID strategies include, but are not limited to:

1. Bioretention (rain gardens);
2. Cisterns and rain barrels;
3. Green roofs meeting the structural requirements of the building code;
4. Roof leader disconnection;

5. Permeable and porous paving;
6. Vegetative swales and filter strips; tree preservation; and
7. Volume retention suitable for previously developed sites.

14.04.564. Section A5.203.1.1 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A5.203.1.1 Tier 1 Energy efficiency – 20% above Title 24, Part 6 Exceed California Energy Code requirements, based on the 2008 Energy Efficiency Standards, by 20%. and meet the requirements of Division A45.6.

Section 14.04.570 is amended to read as follows:

14.04.566. - Section A5.207.2.5 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.568. - Section A5.211.4 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.570. - Section A5.213.1 of the 2010 edition of the California Green Building Standards Code is deleted in its entirety.

14.04.572. - Section A5.303.5 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A5.303.5 Dual plumbing. New buildings and facilities under Tier 1 and Tier 2 shall be dual plumbed for potable and recycled water systems for toilet flushing regardless of when recycled water is available as determined by the enforcement authority.

14.04.576. - Section A5.601.2.4 of the 2010 edition of the California Green Building Standards Code is amended to read as follows:

Section A5.601.2.4 Voluntary measures for *CALGreen* Tier 1. In addition to the provisions of Sections A5.601.2.1 and A5.601.2.3 above, compliance with as many additional of the following voluntary measures from Appendix A5 to achieve an equivalent 40 LEED points is required for Tier 1:

1. From Division A5.1,
 - a. Comply with the designated parking requirements for fuel efficient vehicles for a minimum of 10 percent of parking capacity per Section A5.106.5.1 and Table A5.106.5.1.1.
 - b. Comply with thermal emittance, solar reflectance or SRI values for cool roofs in Section A5.106.11.2 and Table A5.106.11.2.1.1
 - c. Comply with one elective measure selected from this division.
2. From Division A5.3,

- a. Comply with the reduction for indoor potable water use in Section A5.303.2.3.1.
- b. Comply with the reduction in outdoor potable water use in Section A5.304.4.1.
- c. Comply with one elective measure selected from this division.
- 3. From Division A5.4, a. Comply with recycled content of 10 percent of materials based on estimated total cost in Section A5.405.4.
- b. Comply with the 65 percent reduction in construction waste in Section A5.408.3.1.
- c. Comply with one elective measure selected from this division.
- 4. From Division A5.5, a. Comply with resilient flooring systems for 80 percent of resilient flooring in Section A5.504.4.7.
- b. Comply with thermal insulation meeting 2009 CHPS low-emitting materials list in Section A5.504.4.8.
- c. Comply with one elective measure selected from this division.
- 5. Comply with one additional elective measure selected from any division.

14.04.578 - Section A5.601.3.4 of the 2010 edition of the California Building Green Standards Code is amended to read as follows:

Section A5.601.3.4 Voluntary measures for CALGreen Tier 2. In addition to the provisions of Sections A5.601.3.1 and A5.601.3.3 above, compliance with as many additional the following voluntary measures from Appendix A5 to achieve an equivalent 50 LEED points and additional elective measures shown in Table A5.601.3.4 is required for Tier 2:

- 1. From Division A5.1,
 - a. Comply with the designated parking requirements for fuel efficient vehicles for a minimum of 12 percent of parking capacity per Section A5.106.5.1 and Table A5.106.5.1.2.
 - b. Comply with thermal emittance, solar reflectance or SRI values for cool roofs in Section A5.106.11.2 and Table A5.106.11.2.2.1
 - c. Comply with three elective measures selected from this division.
- 2. From Division A5.3,
 - a. Comply with the reduction for indoor potable water use in Section A5.303.2.3.2.
 - b. Comply with the reduction in outdoor potable water use in Section A5.304.4.2.
 - c. Comply with three elective measures selected from this division.
- 3. From Division A5.4,
 - a. Comply with recycled content of 15 percent of materials based on estimated total cost in Section A5.405.4.1.
 - b. Comply with the 80 percent reduction in construction waste in Section A5.408.3.1.
 - c. Comply with three elective measures selected from this division.
- 4. From Division A5.5,

- a. Comply with resilient flooring systems for 90 percent of resilient flooring in Section A5.504.4.7.1.
- b. Comply with thermal insulation meeting 2009 CHPS low-emitting materials list and no added formaldehyde in Section A5.504.4.8.1.
- c. Comply with three elective measures selected from this division.
5. Comply with three additional elective measures selected from any division.

SECTION 4. Chapter 14.05 of the Pasadena Municipal Code is amended as follows:

A. By amending Section 14.05.070 to read as follows:

14.05.070 Permit exemptions.

No permit shall be required under this chapter for any of the following:

A. Grading done exclusively for agricultural purposes in connection with crops or animals, but not including grading for buildings or structures that require a building permit or registration certificate, unless such grading is exempt under other provisions of this section;

B. An excavation for pipeline or other underground utility lines; provided, that erosion control measures are incorporated into the project;

C. Public works projects not requiring a building permit including sewer and storm drain construction, utility trenches and retaining walls or grading accomplished as part of street maintenance activities;

B. Section 14.05.080 is amended to read as follows:

14.05.080 Grading permit requirements.

A. Application. The most current provisions of Chapter 1, Division II Section 105 of the California Building Code are applicable to grading and, in addition, the application shall state the estimated quantities of grading involved.

B. Plans and Specifications. Each application for a grading permit shall be accompanied by 3 sets of plans and specifications and 3 copies of supporting data. Plans shall be drawn to scale of at least 1-inch equals 20 feet upon substantial paper, Mylar or similar material and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that the proposed grading will conform to the provisions of this chapter and all other relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work and the name and address of the owner, the person by whom they were prepared, the project soils engineer and the project engineering geologist. The plans and specifications shall be prepared and signed by a civil engineer.

C. Information on Plans and in Specifications. The plans shall include the following information:

1. Limiting dimensions, elevations or finished contours to be achieved by the grading and proposed drainage channels and related construction shown by contour map, cross-sections or other means. The contours shall be shown for the existing land conditions and the proposed final work. The proposed final grades shall indicate clearly all cut, fill and slopes, and show the calculation of the quantities of excavation and fill involved. Contours shall be shown according to the following schedule:

Natural Slope	Maximum Contour Interval(in feet)
2 percent or less	2
Over 2 percent	5;

2. General vicinity map of the proposed site;

3. Property limits and accurate contours of existing ground and details of terrain, soil types and area drainage, prepared, signed and sealed by a licensed surveyor;

4. Location of any buildings or structures on the property where the work is to be performed and the approximate location of any buildings or structures on land of adjacent owners which may be affected by the proposed grading operations;

5. Specifications of the construction and material requirements.

6. The following notes shall be placed on the plans:

a. In the case of emergency, call _____ (Responsible Person) at _____ (24-hour Phone Number)

b. The undersigned civil engineer will supervise erosion-control work and affirm to the best of his/her knowledge that work is in substantial conformance with the approved plans.

(Signature)

(Date)

SECTION 5. Chapter 14.16 of the Pasadena Municipal Code is amended as follows:

A. By amending the title of the chapter to read as follows:

Chapter 14.16 - CERTIFICATE OF INSPECTION

B. By amending Section 14.16.010 to read as follows:

14.16.010 - Short title.

This chapter shall be known as the "inspection ordinance."

C. By amending Section 14.16.020 to read as follows:

14.16.020 - Definitions.

A. "Administrator" means the housing and neighborhood services administrator of the planning, housing and development services department of the city.

B. "Occupant" means any person who occupies a unit, whether as an owner, or tenant or permittee of the owner.

C. "Owner" means the person in whom the title to property is vested or that person's agent.

D. "Person" means an individual, partnership, corporation or association, or the rental agent of any of the foregoing.

E. "Quadrennial certificate of inspection" means a permit valid for four years issued to owners of multifamily residential projects of three or more units, including boarding or rooming houses.

F. "Certificate of inspection" means a certificate is valid until a change of occupancy and/or ownership occurs, and required for single-family units or projects of two units when such units are sold, rented, leased or exchanged.

G. "Temporary certificate of inspection" means a certificate is valid for up to 6 months issued to an owner, in the discretion of the administrator or his designee, when the units in question are in substantial compliance with this code and the owner is making good faith efforts to correct deficiencies.

H. For purposes of this chapter a "Boarding or rooming house" means a house where 3 or more rooms up to 5, are provided for rent.

D. By amending Section 14.16.030 to read as follows:

14.16.030 - Required.

No person shall occupy, change the use of or sell, exchange, rent, lease or otherwise permit any unit which is hereafter vacated by the occupant to be reoccupied until a certificate of inspection, quadrennial certificate of inspection or temporary certificate of inspection is issued by the administrator, as hereinafter provided.

A. With respect to single-family units and duplexes, such inspection shall occur each time the unit is sold, rented, leased or exchanged.

B. With respect to multifamily residential units and rooming or boarding houses, each unit shall be inspected no less than once every 4 years.

E. By amending Section 14.16.040 to read as follows:

14.16.040 - Application—Filing.

A. The owner shall file with the administrator, prior to the sale or occupancy of the premises, a written application for a certificate of inspection on a form to be prescribed by the administrator, accompanied by the fee therefore. The application process must be completed within 6 months of initiation or an additional application fee shall be required.

B. The application fee covers one inspection of the site. Additional fees shall be charged for second or subsequent inspection visits.

F. By amending Section 14.16.050 to read as follows:

14.16.050 - Inspection and issuance.

After the application for a certificate of inspection is filed with the city and an inspection date scheduled, the administrator shall cause an inspection of the unit(s) to be made for compliance with the city's housing code, zoning plan and code, and other ordinances of the city related to the health and safety of residents. If the unit(s) is in compliance with said codes and ordinances, the administrator shall issue a certificate of inspection.

G. By amending Section 14.16.060 to read as follows:

14.16.060 - Contents.

The certificate of inspection shall state:

- A. The date of issue;
- B. The legal use and occupancy of the unit;
- C. The address of the building and/or unit;
- D. The name of the person to whom it is issued; and
- E. The certification that the unit complies with the provisions of applicable codes and ordinances.

H. By amending Section 14.16.605 to read as follows:

14.16.065 - Certificate void.

- A. The certificate of inspection shall be void upon a change of use of the unit to a nonresidential use.
- B. In the case of single-family units or duplexes, the certificate of inspection shall be void after the occupant vacates the premises.
- C. In the case of multifamily residential projects consisting of 3 units or more, the certificate of inspection shall be void 4 years after the date appearing on the certificate of inspection.

I. By amending Section 14.16.070 to read as follows:

14.16.070 - Time limit for compliance.

Where an inspection discloses such unit is not in compliance with said codes and ordinances, the administrator shall give written notice of each deficiency to the owner. No certificate of inspection shall be issued to the owner until all deficiencies are corrected. A temporary certificate of Inspection may be issued to the owner for a time period specified on the certificate if the units in question are determined by the administrator to be in substantial compliance with the city's code and the owner makes a showing of good faith efforts to correct all deficiencies. If the owner fails to correct all the deficiencies within the time specified on the temporary certificate of inspection, or within 6 months of the initial application, the case shall be referred to the code enforcement appeals commission or to the city prosecutor's office for appropriate action, depending on the seriousness of the violation.

J. By amending Section 14.16.120 to read as follows:

14.16.120 - Vacant unit requires certificate prior to occupancy.

No person shall permit a vacant unit to be occupied prior to the issuance of a certificate of inspection, quadrennial certificate of inspection or temporary certificate of inspection.

K. By amending Section 14.16.130 to read as follows:

14.16.130 - Adoption of rules and regulations.

The administrator shall promulgate written rules and regulations pertaining to the enforcement and implementation of this chapter. Such rules and regulations shall not become effective until they have been approved and ordered filed by the City Council. Any such rules and amendments thereto shall not take effect until they are so approved and filed after a public hearing therefor. Nothing herein shall prevent the administrator in emergency situations from taking such temporary action as is, in his judgment, within the spirit and intent of this chapter and adopted rules and regulations.

SECTION 6. Chapter 14.28 of the Pasadena Municipal Code is amended as follows:

A. By amending section 14.28.010 to read as follows:

14.28.010 - California Fire Code adopted.

Except as is otherwise provided for in this chapter by specific provision, the minimum standards, provisions and requirements for the safe construction and maintenance of property, facilities, conditions, materials, equipment, fire prevention and alarm systems, and the general supervision thereof for the purpose of combating and control of fire and fire hazards and abatement of same, within the corporate limits of the city, shall be in accordance with the provisions and in the manner prescribed by the California Fire Code, 2010 Edition ("California Fire Code") in its entirety, together with Appendix

Chapter 4 and Appendices B through D, I and J, all as compiled, adopted, and subsequently amended by the International Code Council, California State Fire Marshal's Office, California Building Standards Commission, or City of Pasadena. One copy of the above publications is on file for public inspection and they are adopted and incorporated herein as if fully set forth in this chapter. By amending Section 14.28.020 to read as follows:

14.28.020 - Changes and additions to the adopted code.

1.

Section 101.1 of Chapter 1 of the California Fire Code is amended to read as follows: These regulations shall be known as the Fire Code of the City of Pasadena, herein referred to as "this code."

2.

Section 104 of Chapter 1 of the California Fire Code is amended by adding Section 104.12, entitled "Cost Recovery," to read as follows:

Where an emergency situation is caused or exacerbated by a willful act, a negligent act, or a violation of the Fire Code, Building Code, or any other applicable law, ordinance or regulation, the cost of mitigating and securing any emergency that is within the responsibility of the Fire Chief is a charge against the person who caused the emergency or who caused the circumstances leading to the creation of the emergency. Damages and expenses incurred by any public agency providing mutual aid shall constitute a debt of such person and shall be collectible by the Fire Chief for proper distribution in the same manner as in the case of an obligation under contract expressed or implied. Expenses as stated above shall include, but not be limited to, equipment and personnel committed and any payments required by the public agency to outside business firms requested by the public agency to mitigate or secure the emergency, monitor remediation, and clean up.

3.

The exception in Section 105.6.27 of Chapter 1 of the California Fire Code is amended to read as follows:

Exception: A permit is not required for individual containers with a 20-gallon (45.5 L) water capacity or less, or 40 gallons (75.7 L) cumulatively, serving occupancies in Group R-3.

4.

Section 105.6.43 of Chapter 1 of the California Fire Code is amended to read as follows:

Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 100 square feet (9.5 m²).

Exceptions:

1. Tents used exclusively for recreational camping purposes.

5.

Section 105 of Chapter 1 of the California Fire Code is amended by changing Section 105.7.4, entitled "Cryogenic Fluids," to read as follows: A construction permit is required for installation, alteration or closure of cryogenic fluid storage systems where the system capacity exceeds the amounts listed in Table 105.6.10. Maintenance performed in accordance with this code is not considered an alteration and does not require a permit.

6.

Section 108 of Chapter 1 of the California Fire Code is deleted in its entirety.

7.

Section 109.3 of Chapter 1 of the California Fire Code is amended to read as follows:
Violation penalties. Persons who violate any 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 a misdemeanor and subject to the penalties specified in Chapter 1.24 of the Pasadena Municipal Code.

8.

Section 111.4 of Chapter 1 of the California Fire Code is amended to read as follows:
Any person who continues 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 guilty of a misdemeanor and subject to the penalties specified in Chapter 1.24 of the Pasadena Municipal Code.

9.

Section 510 of the California Fire Code is amended by adding Section 510.1.1, entitled "Disruption of Radio Communications," to read as follows:
The intentional installation or use of materials, devices or other building design features which disrupt or otherwise decreases the effectiveness of radio communications shall be prohibited.

10.

Section 510.3 of the California Fire code, entitled "Emergency responder radio coverage in existing buildings," is amended by changing Item 2 and adding Items 3 through 6 to read as follows:
Existing occupancies shall comply with section 510.1 where one of the following conditions exist:

1. Wherever existing wired communication system cannot be repaired or is being replaced, or where not approved in accordance with Section 510.1, Exception 1

2. Whenever the fire code official determines that compliance is required for the protection of the health and safety of the public or emergency responders.
3. Whenever additions result in an additional level above or below grade, or a total increase of more than 1000 square feet (92.9 m²) or an increase of more than fifty percent (50%) in the total floor area including mezzanines and additional stories, whichever is less, regardless of ownership. Additions shall be cumulative with each application for building permit from January 1, 2008;
4. Whenever the value of alterations exceed fifty percent (50%) of the replacement value of the structure, excluding the value of property and contents. Alteration values shall be cumulative with each application for a building permit from January 1, 2008. Expenditures for maintenance and repairs such as interior and exterior painting, carpeting, interior window coverings, drapes, movable partitions, surface re-roofing or plumbing, mechanical and electrical repairs shall not be considered when calculating the percentage of alterations;
5. Whenever there is an occupancy classification change to a more hazardous use, as determined by the fire code official; or,
6. Whenever any existing Group R Division 1 occupancy is subdivided to condominium or any non-residential occupancy is converted, in part or whole, to a residential occupancy.

11.

Chapter 6 of the California Fire Code is amended by adding section 610 entitled "Photovoltaic Systems", to read as follows:

The fire code official may adopt such fire and life safety requirements as are necessary for the safe installation and operation of photovoltaic systems. Unless and until specific requirements are adopted, the current version of the California Department of Forestry and Fire Protection, Office of the State Fire Marshal's "Solar Photovoltaic Installation Guidance" is adopted.

12.

Section 903 of the California Fire Code is amended by adding Section 903.1.2, entitled "Minimum Fire Suppression Protection for New Construction," to read as follows:

All new construction, shall be provided with an approved automatic fire suppression system throughout the building, without regard to the criteria listed in section 903.2 et seq.

Exception: The following types of construction may be exempt from this section when approved by the fire code official:

1. Garages, carports and similar structures provided no portion of the structure is located more than 150 feet (45720 mm) from approved fire department access;

2. Utility sheds, gazebos, and similar structures of less than 120 square feet (11.15 m²) provided no portion of the structure is located more than 150 feet (45720 mm) from approved fire department access;
3. Fences and open trellises; and,
4. Other similar structures as deemed appropriate by the fire code official.

13.

Section 903 of the California Fire Code is amended by adding Section 903.1.3, entitled "Existing Occupancies," to read as follows:

Existing occupancies, with the exception of R-3.1 and R-4 occupancies, shall comply with section 903.1.2 where one of the following conditions exists:

1. Whenever additions result in an additional level above or below grade, or a total increase of more than 1000 square feet (92.9 m²) or an increase of more than fifty percent (50%) in the total floor area including mezzanines and additional stories, whichever is less, regardless of ownership. Additions shall be cumulative with each application for building permit from January 1, 2008. R-3 occupancies shall not be required to comply with this condition solely due to the addition of an additional level, unless one of the criteria for an increase of total floor area is also exceeded;
2. Whenever the value of alterations exceed fifty percent (50%) of the replacement value of the structure, excluding the value of property and contents, as determined by the Building Official. Alteration values shall be cumulative with each application for a building permit from January 1, 2008. Expenditures for maintenance and repairs such as interior and exterior painting, carpeting, interior window coverings, drapes, movable partitions, surface re-roofing or plumbing, mechanical and electrical repairs shall not be considered when calculating the percentage of alterations;
3. Whenever there is an occupancy classification change to a more hazardous use, as determined by the fire code official; or,
4. Whenever any existing Group R Division 1 occupancy is subdivided to condominium or any non-residential occupancy is converted, in part or whole, to a residential occupancy.

14.

Section 903 of the California Fire Code is amended by adding Section 903.1.4, entitled "Partial Automatic Fire Suppression Systems Prohibited," to read as follows:

Whenever an automatic fire suppression system is installed for any portion of any building or structure, an automatic fire suppression system shall be installed for the entire building or structure.

Finding: Topographic and climatic-Narrow and winding access roads to hillside areas, and hot, dry weather and seasonal winds result in increased exposure to fire risk. Additionally, the increased use of decreased property line setback development increases the community risk from fire spread. The California Fire Code recognizes the

benefits of fire sprinklers in requiring installation in new structures. Partial fire sprinklers protect only limited areas of the structure and provide less protection than complete systems. This amendment continues the existing prohibition of partial fire sprinkler systems in order to decrease the risk of conflagration within the community.

15.

Section 903 of the California Fire Code is amended by adding a sentence at the end of Section 903.3.5, entitled "Water supplies", to read as follows:

Hydraulic calculations shall include a 10% reduction from the source.

16.

Section 903 of the California Fire Code is amended by adding a sentence at the end of Section 903.3.5.1.2, entitled "Residential combination services", to read as follows:

Combination services are not allowed for NFPA 13R systems.

Finding: Geologic- Pasadena is located within a seismically active zone and is near several active fault lines. Residential domestic water supplies are generally not as seismically resilient as fire sprinkler systems. For example, in the event a porcelain fixture broke in an earthquake, a fire suppression system using a combination water supply could be compromised, whereas a fire sprinkler system with a dedicated supply could still be functional. This amendment increases the survivability of fire sprinkler systems.

17.

Section 907 of the California Fire Code is amended by changing the first paragraph of Section 907.2, entitled "When required—new buildings and structures," to read as follows:

For new construction of 10,000 square feet (929 m²) or more, an approved automatic fire alarm system shall be installed in compliance with this code and NFPA 72. At a minimum, smoke detectors, or other listed and approved detection devices, shall be installed in all electrical, mechanical, storage, conference or similar rooms. Listed and approved alarm notification appliances providing both audible and visual notification shall be installed throughout the building in compliance with this code and NFPA 72.

18.

Section 907 of the California Fire Code is amended by changing Section 907.3, entitled "Existing Occupancies," to read as follows:

Existing occupancies shall comply with section 907.1.5 where one of the following conditions exists:

1. Whenever additions result in an additional level above or below grade, or a total increase of more than 1000 square feet (92.9 m²) or an increase of more than fifty

percent (50%) in the total floor area including mezzanines and additional stories, whichever is less, regardless of ownership. Additions shall be cumulative with each application for building permit from January 1, 2008;

2. Whenever the value of alterations exceed fifty percent (50%) of the replacement value of the structure, excluding the value of property and contents, as determined by the Building Official. Alteration values shall be cumulative with each application for a building permit from January 1, 2008. Expenditures for maintenance and repairs such as interior and exterior painting, carpeting, interior window coverings, drapes, movable partitions, surface re-roofing or plumbing, mechanical and electrical repairs shall not be considered when calculating the percentage of alterations;

3. Whenever there is an occupancy classification change to a more hazardous use, as determined by the fire code official; or,

4. Whenever any existing Group R Division 1 occupancy is subdivided to condominium or any non-residential occupancy is converted, in part or whole, to a residential occupancy.

5. Where required by Chapter 46.

19.

Section 908 of the California Fire Code is amended by adding section 908.7, entitled "Requirements", to read as follows:

All emergency alarm control panels shall be UL 2017 or UL 864 Listed. All sensors shall be UL 2075 Listed. All Detection and Alarm systems shall be powered and supervised as required for fire alarm systems NFPA 72. Secondary power supplies shall be calculated for 24-hours equipment standby time plus emergency standby duration calculated for the longest modeled release rate or 5-minutes, whichever is the longest duration. Visual alarms shall be blue.

20.

Section 1008.1.10 of the California Fire Code is amended by deleting the exception.

21.

Section 2403.2 of the California Fire Code is amended to read as follows:

Tents and membrane structures having an area in excess of 100 square feet (9.5 m²) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.

22.

Section 2701 is amended by adding Section 2701.6.1.1, entitled "Temporary Facility Closure," to read as follows:

Unless otherwise specified, a temporary facility closure shall last not more than 180 calendar days. The fire code official may authorize one 180 calendar day extension.

23.

Section 2703 of the California Fire Code is amended by adding Section 2703.2.9.3, entitled "Minimum Testing," to read as follows:

At a minimum, all tanks, primary storage, secondary containment, monitoring systems, release prevention and mitigation systems, and other safety equipment or systems for the storage, use or handling of any hazardous material shall be tested for proper function as described by manufacturer's or design specification, whichever is more stringent, prior to the introduction of a hazardous material.

24.

The first paragraph of Section 3404.2.7.4 of the California Fire Code is amended to read as follows:

Stationary, above-ground tanks shall be equipped with additional venting that will relieve excessive internal pressure caused by exposure to fires. Emergency venting devices shall be listed and approved. Emergency vents for Class I, II and IIIA liquids shall not discharge inside buildings. This requirement shall also apply to each compartment of a compartmentalized tank, the interstitial space (annulus) of a secondary containment-type tank and the enclosed space of tanks of closed-top dike construction. Additionally, this requirement shall apply to spaces or enclosed volumes, such as those intended for insulation, membranes or weather shields that can contain liquid because of a leak from the primary vessel and can inhibit venting during fire exposure. The insulation, membrane or weather shield shall not interfere with emergency venting. The venting shall be installed and maintained in accordance with Section 22.7 of NFPA 30.

25.

Section 3404.2.7.5.8 of the California Fire Code is amended, by deleting the exception.

Finding: Topographic- The increased use of decreased property line setback development increases the community risk from fire spread. Smaller flammable and combustible liquid tanks are allowed by code to be placed relatively close to buildings and property lines. The installation of overfill prevention decreases the likelihood that spills during the filling process will endanger structures on the same or adjacent properties.

26.

Section 3404.2.8.14 of the California Fire Code is amended to read as follows: Emergency vents shall be vapor tight and shall not be allowed to discharge inside the vault. Long-bolt manhole covers shall not be allowed for this purpose.

27.

Section 3404.2.9.6.1 of the California Fire Code is amended to read as follows: Storage of Class I and II liquids in above-ground storage tanks outside of buildings is prohibited within the City of Pasadena.

28.

Section 3406.2.4.4 of the California Fire Code is amended to read as follows: The storage of Class I and II liquids in above-ground storage tanks outside of buildings is prohibited within the City of Pasadena.

29.

Section 3506.2 of the California Fire Code is amended to read as follows: Storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited within the City of Pasadena.

30.

Section 3801.3 of the California Fire Code is amended to read as follows: Where a single container is more than 20 gallons (75.7 L) in water capacity, or the aggregate capacity of containers is more than 40 gallons (151 L) in water capacity, or the aggregate water capacity of LP-gas containers is more than 40 gallons (151 L), the installer shall submit construction documents for such installation.

31.

Section 3801 of the California Fire Code is amended by adding Section 3801.4, entitled "Minimum Testing," to read as follows:

At a minimum, all tanks, primary storage, secondary containment, monitoring systems, release prevention and mitigation systems, and other safety equipment or systems for the storage, use or handling of any hazardous material shall be tested for proper

function as described by manufacturer's or design specification, whichever is more stringent, prior to the introduction of a hazardous material.

32.

Section 3804.2 of the California Fire Code is amended to read as follows:

~~Within the City of Pasadena, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L).~~

33.

Section 4603.6.9.7 of the California Fire Code is amended by changing the first paragraph to read as follows:

An approved emergency voice/alarm communication system shall be provided in every existing high-rise building which exceeds 75 feet (22860 mm) in height measured in the manner set forth in Section 403 of the California Building Code. Such system shall provide communication from a location available to and designated by the fire code official to not less than all public areas.

34.

Section 4901 of the California Fire Code is amended by adding Section 4901.1.1, entitled "Referenced standard," to read as follows:

The International Wildland-Urban Interface Code, 2009 edition, is adopted as a referenced standard for the enforcement of this chapter and other related sections of the Fire Code. Where conflicts occur between the provisions of adopted codes and the referenced standard, the provisions of adopted codes shall apply.

35.

Section 4905.2.1 of the California Fire Code is amended by adding Section 4910.1.1.1, entitled "Wood Roof Covering Prohibited," to read as follows:

No wood roof covering material shall be installed on any structure located in the Extreme Hazard, High Hazard, or Moderate Hazard Fire Severity Zones as identified by the Pasadena Fire Department.

36.

Section 4906.2 is amended by changing Item 2 to read as follows:

Land designated as Moderate, High and Very-High Fire Hazard Severity Zone by cities and other local agencies.

37.

Appendix A of the California Fire Code is deleted in its entirety.

38.

Exception 1 in Section B105.2 of Appendix B of the California Fire Code is amended to read as follows:

1. A reduction in required fire-flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per hour (5678 L/min) for the prescribed duration as specified in Table B105.1.

39.

Section D103.6 of Appendix D of the California Fire Code is amended to read as follows:

Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with the current specifications maintained by the Pasadena Department of Public Works.

SECTION 7. Chapter 14.90 is deleted in its entirety.