

Introduced by _____

ORDINANCE NO _____

AN ORDINANCE OF THE CITY OF PASADENA AMENDING PASADENA MUNICIPAL CODE TITLE 14 AND ADOPTING TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS INCORPORATING THE 2016 CALIFORNIA BUILDING CODE AND APPENDIX CHAPTERS C, D, H, I, AND J; THE 2016 CALIFORNIA RESIDENTIAL BUILDING CODE AND APPENDIX E, G, AND H; THE 2016 CALIFORNIA MECHANICAL CODE; THE 2016 CALIFORNIA PLUMBING CODE; THE 2016 CALIFORNIA ELECTRICAL CODE; THE 2016 CALIFORNIA FIRE CODE; AND THE 2016 CALIFORNIA GREEN BUILDINGS STANDARDS CODE

Whereas the City of Pasadena is adopting the 2016 editions of the California Building Code, Residential Building Code, Fire Code and Green Building Standards Code and is making certain amendments thereto, and

Whereas State law requires that a city must adopt specific findings as to the topographic, geological, and climatic conditions to justify the amendment 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, 110, 115, 258, and 315 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 amendments to the state codes as set forth in Section 14 04 400 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 codes as set forth in Sections 14 04 120, 130, 140, 145, 147, 150, 155, 160, 170, 175, 180, 205, 210, 215, 216, 220, 225, 235, 260, 267, 275, 282, 285, 290, 295, and 305 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 the amendments to the state code as set forth in Sections 14 04 165, 185, 190, 217, 270, and 280 below,

Justification: 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.

5 With respect to the amendments to the state code as set forth in Sections 14 04 500, 501, 502, 504, 506, 508, 510, 512, 514, 516, and 518 below,

Justification: 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.

6 With respect to the amendments to the state fire code as set forth in section 14 28 020 items 3, 4, 24, 31, 32, 33, 34 and 36 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 or hazardous materials 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

7 With respect to the amendments to the state fire code as set forth in section 14 28 020 items 13, 14, 20, 25, and 26 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 through increased use of automatic fire extinguishing systems and/or the decreased use of combustibile exterior materials, or both

8 With respect to the amendments to the state fire code as set forth in section 14 28 020 items 15, 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 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 The proposed amendments allow for either increased review and mitigation, decreased hazard to the community by allowing for limited leakage or other water loss in calculations and disallowing a more vulnerable type of system, or both

9 With respect to the amendments to the state fire code as set forth in section 14 28 020 items 12 and 19 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 by ensuring acceptable emergency communications and thereby improving the safety of both the community and emergency responders

10 With respect to the amendments to the state fire code as set forth in section 14 28 020 item 38 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. This amendment increases public and firefighter safety by increasing the likelihood that automatic fire extinguishing systems will have sufficient water flow capacity to contain or extinguish significant fires before the fire extends to adjacent areas or structures.

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 and 21 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 With respect to the amendment to the state fire code as set forth in section 14 28 020 item 30 below, the proposed amendments are required due to **topographic** conditions. 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.

14 With respect to the amendment to the state fire code as set forth in section 14 28 020 item 25 below, the proposed amendments are required due to **topographic** conditions. 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. Allowing the emergency venting of flammable and combustible vapors within vaults greatly increases the likelihood of vapor explosions within the vault. Allowing the use of long-bolt manhole covers as a means of emergency venting creates a hazard to anyone nearby the manhole should an emergency release occur without warning. Disallowing the practices of in-vault venting and the use of long-bolt manhole covers increases the public safety by requiring venting to occur at a safe location.

15 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 cost 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 _____ The ordinance adopts the 2016 California Building Code, the 2016 California Residential Code, the 2016 California Mechanical Code, the 2016 California Plumbing Code, the 2016 California Electrical Code, the 2016 California Fire Code and the 2016 California Green Building Standards Code 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 _____ shall take effect 30 days after its publication by title and summary The full text of the ordinance is on file in the City Clerk’s Office ”

SECTION 2. Title 14, Chapter 14 03 of the Pasadena Municipal Code is amended 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 2016 Edition of the California Building Code, as published by the California State Building Standards Commission

14.03.020 - Section 101.1 of Chapter 1 Division II of the 2016 California Building Code 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

14.03.030 - Chapter 1 Division II Section 103.1 of the 2016 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 and Community Development Department which employs a Building Official who shall be authorized to enforce the provisions of this code

SECTION 3. Title 14, Chapter 14 04 of the Pasadena Municipal Code is amended as follows

14.04.010 - Adoption and filing.

California Building Codes adopted California Code of Regulation Title 24 part 1-12 The 2016 California Building Code Chapters 1-35 and Appendix Chapters C, D, H, I, and J, the 2016 California Residential Code Appendix Chapters E, H, J, and V, the 2016 California Green Building Standards Code, the 2016 California Electrical Code, The 2016 California Mechanical Code, the 2016 California Plumbing Code, and 2016 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 (SFM) 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 effect 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 2016 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 adding Section 14 04 020 to read as follows

14.04.020 – Section 105.5 of the 2016 California Building Code and Section R105.5 of the 2016 California Residential Building Code is amended to read as follows:

Expiration Beginning January 1, 2017, every permit issued by the Building Official under the provisions of this Code shall expire by limitation and become null and void if all work by said permit is not completed within the time limits specified below from the date of issuance of the building permit

Construction Type	Project Completion Time
Single-Family or Duplex	24 months
Multiple Family (3+ units)	36 months

Non-residential	36 months
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- a Before such work can be recommenced, a permit extension, as specified in Subsection A, shall be first obtained. No permit shall be extended more than twice.
- b Time limits will not be increased by issuance of subsequent building permits for the same project.
- c When a project is divided into separate permits by the applicant, the work on such permits is to be done concurrently, the time allowed to complete all work on each separate permit shall be established from the initial permit issuance date.

A Extensions and Fees.

- a Any permittee holding an active permit may apply in writing for an extension of the time within which work under that permit may be continued when, for good and satisfactory reasons, he or she is unable to continue work within the time required by this section due to circumstances beyond the control of the permittee. The written request must demonstrate that
 - i Due to circumstances beyond the owner's or permittee's control, construction could not be commenced, continued or completed in the authorized time period,
 - ii If the construction has started, substantial progress has been made,
 - iii The condition of the property presents no health or safety hazard, and,
 - iv The continued delay will not create any unreasonable aesthetic impact to the neighborhood or substantial economic detriment to the neighboring property owners.
- b The Building Official may extend the time for action by the permittee for a period not exceeding six calendar months. Payment of the building permit extension fee shall be required. The extension fee shall be calculated as the greater of two percent (2%) of the estimated total project valuation or one-thousand dollars.
- c Building permits shall not be extended more than twice, and each extension shall not exceed six months.

B Appeals. If the property owner feels aggrieved by the determination of the Building Official regarding the applicable time limit or by the denial of an additional six-month extension, the property owner may appeal to the Code Compliance Hearing Officer within ten days of the Building Official's decision. The appellant shall pay a hearing appeal fee at the time of filing an appeal in an amount as shall be established from time to time by resolution of the City Council. The Code Compliance Hearing Officer shall notify the appellant in

writing of the date of the hearing on the appeal, and such notice shall be sent at least ten days before the date of the hearing, which shall be held no later than thirty days after the filing of the appeal

D By adding Section 14 04 022 to read as follows

14.04.022 Posting of Construction Signs.

Except for single-family construction involving only minor interior remodel, minor building permits, window change outs, re-roofs or other minor building permits, one sign, visible from the street, must be posted listing project address, permit number, work description, name of Construction Company, contact name of Construction Company and phone number and/or if owner-builder contact name and phone number of owner. The sign shall also list the City's allowable construction hours and days pursuant to Pasadena Municipal Code Section 9 36 070, and clearly identify the permit expiration date. Said sign shall be white in color as background and a minimum size of 24" in height by 36" in width with 1" high legible black lettering. Posting of the required sign is the responsibility of the permittee, and such sign shall be posted and maintained at the construction site where it can be read by the public. This notice must be posted prior to the start of construction and displaced continuously until all permitted work is inspected and approved by City of Pasadena Building & Safety Division. Sign to be verified by the City upon the first inspection. Signs shall be replaced if damaged, torn, faded, or if the required information is illegible, as determined by the Building Official.

E By adding Section 14 04 024 to read as follows

14.04.024 Construction Site Fencing.

Whenever a building permit is issued to construct, add to or alter a building or site, the building official may require temporary perimeter fencing to be installed and to be maintained in good condition.

The installation of temporary fencing shall be required for the following projects

- 1 Projects involve grading, trenching or excavation activities,
- 2 The construction area is visible from the public right-of-way with the exception of roof replacement, window change-outs with no framing work
- 3 There is outside storage of building materials, equipment, construction materials or equipment stored at the front of the property
- 4 The property is vacant during the duration of the construction
- 5 As determined by the Building Official

The Building Official shall require the site to be temporarily fenced and screened on all sides for the duration of the construction project. The height of the fence shall be seventy-two inches (72) high with gates to access the site. The screening material shall be tightly secured to the fencing, free of holes and

without advertising. The perimeter fencing may be removed when there are no remaining exterior construction activities visible from the public right-of-way and there is no longer visible outside storage of building materials, equipment or fixtures or as determined by the Building Official. An address sign shall be installed and be visible from public right of way at all perimeter points to include the street name and number of the site using minimum six-inch high letters and numbers, and shall be posted at the top of the perimeter fence or at least five feet from the ground. A "No Trespassing" sign, conforming to the requirements of California Penal Code, Section 602, shall be installed at all perimeter access points, posted at the top of the perimeter fence or at least five feet from the ground.

F By amending Section 14.04.030 to read as follows

14.04.030 Violations.

All sections in the 2016 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 double the permit fee whichever is greater 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.

G By amending Section 14.04.040 to read as follows

14.04.040 Board of appeals.

All sections in the respective 2016 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.

H 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 to the 2016 codes referenced in Section 14.04.010 and as amended herein.

I By amending Section 14.04.080 to read as follows:

14.04.080 Moved building.

Section 409 of Part 10 of the 2016 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.

J By making amendments to the 2016 California Building Code by amending sections, 14.04.102, 14.04.110, 14.04.115, 14.04.120, 14.04.130, 14.04.140, 14.04.145, 14.04.147, 14.04.150, 14.04.160, 14.04.165, 14.04.170, 14.04.175, 14.04.180, 14.04.185, 14.04.190, 14.04.205, 14.04.210, 14.04.215, 14.04.216, 14.04.217, 14.04.220, 14.04.225, 14.04.235, 14.04.250, 14.04.258, 14.04.260, 14.04.265, 14.04.267, 14.04.270, 14.04.275, 14.04.280, 14.04.282, 14.04.285, 14.04.290, 14.04.295, 14.04.315, 14.04.400, 14.04.500, 14.04.502, 14.05.500, 14.04.502, 14.40.504, 14.04.506, 14.40.516, 14.40.526, deleting sections

14 04 155, 14 04 205, 14 40 305, 14 40 501, 14 40 508, 14 40 512, 14 40 514, 14 40518, 14 40 522, and 14 40 524, and adding section 14 04 257 as follows

14.04.100 - Changes and additions to the adopted 2016 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 2016 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.

14.04.110 - Section 1505.1 of the 2016 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 E108 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: Skylights and sloped glazing that comply with Chapter 24 or Section 2610. 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 2016 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 1507 of the 2016 California Building Code is amended by adding a section 1507.1.1 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

14.04.130 - Section 1613.5.3 is added to Chapter 16 of the 2016 Edition of the California Building Code to read as follows:

1613 5 3 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

14.04.140 - Section 1613.5.4 is added to Chapter 16 of the 2016 California Building Code to read as follows:

1613 5 4 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 crossties
- 2 The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear

14.04.145 – Section 1704.6 of the 2016 California Building Code is amended to read as follows:

Section 1704.6 Structural Observations. Where required by the provisions of Section 1704 6 1 or 1704 6 2, the owner or the owner's authorized agent shall employ a registered design professions as a structural observer to perform structural observations Structural observation does not include or waive the responsibility for the inspections in Section 110 or the special inspections in Section 1705 or other section of this code 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 authorized agent 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 authorized agent, 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.

14.04.147 - Section 1704.61 of the 2016 California Building Code is amended to read as follows.

1704.6.1 Structural observations for seismic resistance. Structural observations shall be provided for those structures assigned to Seismic Design Category D, E or F, where one or more of the following conditions exist:

- 1 The structure is classified as Risk Category III or IV in accordance with Table 1604.5
- 2 The height of the structure is greater than 75 feet (22860 mm) above the base
- 3 The structure, is classified as Risk Category I or II in accordance with Table 1604.5, and lateral design is required for the structure or portion thereof

Exception: One-story wood framed Group R-3 and Group U Occupancies less than 2,000 square feet in area, provided the adjacent grade is not steeper than 1 unit vertical in 10 units horizontal (10% sloped), assigned to Seismic Design Category D

- 4 When so designated by the registered design professional responsible for the structural design
- 5 When such observation is specifically required by the building official

14.04.150 - Section 1705.3 of the 2016 Edition of the California Building Code is amended to read as follows

1705.3 Concrete Construction. Special inspections and tests of concrete construction shall be performed in accordance with this section and Table 1705.3

Exceptions: Special inspection and tests 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) regardless of the compressive strength specified in the construction documents or used in the footing construction

2 Continuous concrete footings supporting walls of buildings three stories or less above grade plane 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 foundation walls constructed in accordance with Table 1807 1 6 2

14.04.160 – Exception 3 of Section 1705.12 of the 2016 California Building Code is amended to read as follows:

1705.12 Special inspections for seismic resistance. Special inspections for seismic resistance shall be required as specified in Sections 1705 12 1 through 1705 12 9, unless exempted by the exceptions of Section 1704 2

Exception: The special inspections specified in Sections 1705 12 1 through 1705 12 9 are not required for structures designed and constructed in accordance with one of 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 3 4, does not exceed 0 5, and the building height of the structure does not exceed 35 feet (10 668 mm)
- 2 The seismic force-resisting system of the structure consists of reinforced masonry or reinforced concrete, the design spectral response acceleration at short periods, S_{DS} , as determined in Section 1613 3 4, does not exceed 0 5, and the building height of the structure does not exceed 25 feet (7620 mm)
- 3 The structure is a detached one- or two-family dwelling not exceeding two stories above grade plane, is not assigned to Seismic Design Category D, E or F and does not have any of the following horizontal or vertical irregularities in accordance with Section 12 3 of ASCE 7
 - 3 1 Torsional or extreme torsional irregularity
 - 3 2 Nonparallel systems irregularity
 - 3 3 Stiffness-soft story or stiffness-extreme soft story irregularity
 - 3 4 Discontinuity in lateral strength-weak story irregularity

14.04.165 - Section 1807.1.4 of the 2016 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 AWPAs 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.

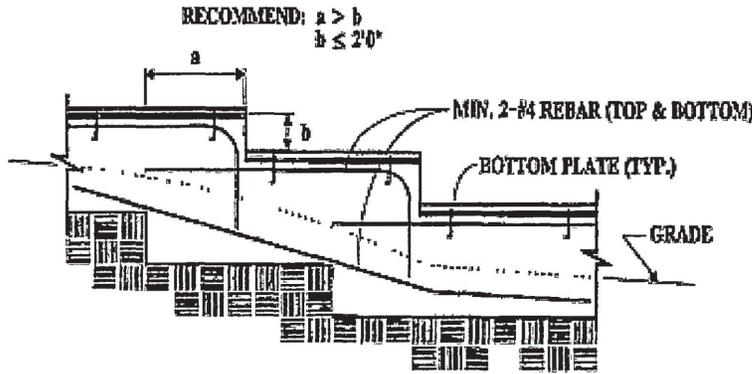
14.04.170 - Section 1807.1.6 of the 2016 California Building Code is amended to read as follows:

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 2016 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 2016 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

- a) Depth of footings shall be in accordance with Section 1809 4
- b) The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing
- c) Not Adopted
- d) See Section 1908 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F

- e) For thickness of foundation walls, see Section 1807 1 6
- f) 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 2016 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 AWP A 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 ANSI/AWC 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 2016 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 ANSI/AWC 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

14.04.210 - Section 1905.1.7 of the 2016 California Building Code is amended to read as follows:

1905.1.7 ACI 318, Section 14 1 4 Delete ACI 318, Section 14 1 4, and replace with the following

14 1 4 – Plain concrete in structures assigned to Seismic Design Category C, D, E or F

14 1 4 1 – Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows

Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement or cementitious material 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.

Exceptions:

Detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, are permitted to have plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4. They 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 1905.1 is amended and Sections 19.05.1.9 thru 19.5.1.11 are added to Chapter 19 of the 2016 California Building Code to read as follows:

1905.1 General. The text of ACI 318 shall be modified as indicated in Sections 1905.1.1 through 1905.1.11.

1905.1.9 ACI 318, Section 18.7.5. Modify ACI 318, Section 18.7.5, by adding Section 18.7.5.7 and 18.7.5.8 as follows:

18.7.5.7 Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 18.7.5.1, Items (a) through (c), over the full height of the member.

18.7.5.8 – 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 18.7.6.1 and 18.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 18.7.5.1 through 18.7.5.3 shall be provided. For beams framing into opposite sides of the column, the moment components are permitted to be assumed to be of opposite sign. For the determination of the design strength, ϕP_n , of the column, these moments are permitted to be assumed to result from the deformation of the frame in any one principal axis.

1905.1.10 ACI 318, Section 18.10.4. Modify ACI 318, Section 18.10.4, by adding Section 18.10.4.6 as follows:

18.10.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated shear strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 18.14.

1905.1.11 ACI 318, Section 18.12.6. Modify ACI 318, by adding Section 18.12.6.2 as follows:

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

14.04.216 - Section 2304.10.1 of the 2016 California Building Code is amended to read as follows:

2304 10 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 10 1 Staple fasteners in Table 2304 10 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

14.04.217 - Section 2304.12.5 of the 2016 California Building Code is amended to read as follows:

2304 12 5 Wood used in retaining walls and cribs Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 for soil and fresh water use Wood shall not be used in retaining or crib walls for structures assigned to Seismic Design Category D, E or F

14.04.220 - Section 2305.4 is added to Chapter 23 of the 2016 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 2016 California Building Code to read as follows:

2305 5 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

14.04.235 - Section 2308.6.5, Figure 2308.6.5.1, and Figure 2308.6.5.2 of the 2016 California Building Code are amended to read as follows:

2308 6 5 Alternative bracing An alternate braced wall (ABW) or a portal frame with hold-downs (PFH) described in this section is permitted to substitute for a 48-inch (1219 mm) braced wall panel of Method DWB, WSP, SFB, PBS, PCP or HPS For Method GB, each 96-inch (2438 mm) section (applied to one face) or 48-inch (1219 mm) section (applied to both faces) or portion thereof required by Table 2308 6 1 is permitted to be replaced by one panel constructed in accordance with Method ABW or PFH.

2308 6 5 1 Alternate braced wall (ABW) An ABW shall be constructed in accordance with this section and Figure 2308 6 5 1 In one-story buildings, each panel shall have a length of not less than 2 feet 8 inches (813 mm) and a height of not more than 10 feet (3048 mm) Each panel shall be sheathed on one face with 3/8-inch (3 2 mm) minimum-thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table 2304 10 1 and blocked at wood structural panel edges For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch-minimum-thickness (11 9 mm) wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports Two anchor bolts installed in accordance with Section 2308 3 1 shall be provided in each panel Anchor bolts shall be placed at each panel outside quarter points Each panel end stud shall have a hold-down device fastened to the foundation, capable of providing an approved uplift capacity of not less than 1,800 pounds (8006 N) The hold-down device shall be installed in accordance with the manufacturer's recommendations The ABW shall be supported directly on a foundation or on floor framing supported directly on a foundation that is continuous across the entire length of the braced wall line This foundation shall be reinforced with not less than one No 4 bar top and bottom Where the continuous foundation is required to have a depth greater than 12 inches (305 mm), a minimum 12-inch by 12-inch (305 mm by 305 mm) continuous footing is permitted at door openings in the braced wall line This continuous footing shall be reinforced with not less than one No 4 bar top and bottom This reinforcement shall be lapped 24 inches (610 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line

Where the ABW is installed at the first story of two-story buildings, the wood structural panel sheathing shall be provided on both faces, three anchor bolts shall be placed at one-quarter points and tie-down device uplift capacity shall be not less than 3,000 pounds (13 344 N)

2308 6 5 2 Portal frame with hold-downs (PFH) A PFH shall be constructed in accordance with this section and Figure 2308 6 5 2 The adjacent door or window opening shall have a full-length header

In one-story buildings, each panel shall have a length of not less than 16 inches (406 mm) and a height of not more than 10 feet (3048 mm) Each panel shall be sheathed on one face with a single layer of 3/8-inch (9 5 mm) minimum-thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Figure 2308 6 5 2 For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch-minimum-thickness (11 9 mm)

wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports and in accordance with Figure 2308.6.5.2. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure 2308.6.5.2. A built-up header consisting of at least two 2-inch by 12-inch (51 mm by 305 mm) boards, fastened in accordance with Item 24 of Table 2304.10.1 shall be permitted to be used. A spacer, if used, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. The clear span of the header between the inner studs of each panel shall be not less than 6 feet (1829 mm) and not more than 18 feet (5486 mm) in length. A strap with an uplift capacity of not less than 1,000 pounds (4,400 N) shall fasten the header to the inner studs opposite the sheathing. One anchor bolt not less than 5/8 inch (15.9 mm) diameter and installed in accordance with Section 2308.3.1 shall be provided in the center of each sill plate. The studs at each end of the panel shall have a hold-down device fastened to the foundation with an uplift capacity of not less than 3,500 pounds (15,570 N).

Where a panel is located on one side of the opening, the header shall extend between the inside face of the first full-length stud of the panel and the bearing studs at the other end of the opening. A strap with an uplift capacity of not less than 1,000 pounds (4,400 N) shall fasten the header to the bearing studs. The bearing studs shall also have a hold-down device fastened to the foundation with an uplift capacity of not less than 1,000 pounds (4,400 N). The hold-down devices shall be an embedded strap type, installed in accordance with the manufacturer's recommendations. The PFH panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom. Where the continuous foundation is required to have a depth greater than 12 inches (305 mm), a minimum 12-inch by 12-inch (305 mm by 305 mm) continuous footing is permitted at door openings in the braced wall line. This continuous footing shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped not less than 24 inches (610 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

Where a PFH is installed at the first story of two-story buildings, each panel shall have a length of not less than 24 inches (610 mm).

*Note: For figure 2308.6.5.1 and 2308.6.5.2, structures assigned to Seismic Category D or E, sheathed on one face with 15/32 inch-minimum thickness wood structural panel sheathing nailed with 8d common nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

14.04.250 - Section 2308.6.9 of the 2016 California Building Code is amended to read as follows:

2308.6.9 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.6.1 or 2304.10.1. 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 inches (6096 mm) intervals along the top plate of discontinuous vertical framing

14.04.257 - Section 3109.4.4.2.1 is added to the 2016 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 2016 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 2016 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 2016 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 9 of the California Building Code

14.04.267 - Section R301.2.2.3.8 is added to Chapter 3 of the 2016 California Residential Code to read as follows:

R301 2 2 3 8 Anchorage of Mechanical, Electrical, or Plumbing Components and Equipment Mechanical, electrical, or plumbing components and equipment shall be anchored to the structure Anchorage of the components and equipment shall be designed to resist loads in accordance with the California Building Code and ASCE 7, except where the component is positively attached to the structure and flexible connections are provided between the component and associated ductwork, piping, and conduit, and either

- 1 The component weighs 400 lb (1,780 N) or less and has a center of mass located 4 ft (1 22 m) or less above the supporting structure, or
- 2 The component weighs 20 lb (89N) or less or, in the case of a distributed system, 5 lb/ft (73 N/m) or less

Section 14.04.270 – Section R401.1 of the 2016 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 buildings In addition to the provisions of this chapter, the design and construction of foundations in flood hazard areas as established by Table R301 2(1) shall meet the provisions of Section R322 Wood foundations shall be designed and installed in accordance with AWC 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

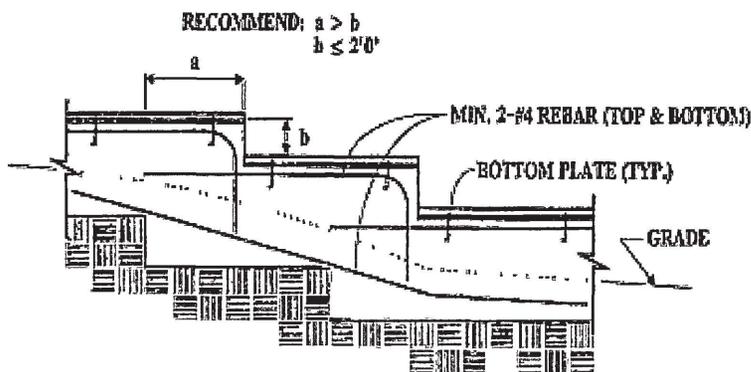
14.04.275 - Sections R403.1.2, R403.1.3.6, R403.1.5 of the 2016 California Residential Code are amended to read as follows:

R403 1 2 Continuous footing in Seismic Design Categories D₀, D₁ and D₂ Exterior walls of buildings located in Seismic Design Categories D₀, D₁ and D₂ shall be supported by continuous solid or fully grouted masonry or concrete footings All required interior braced wall panels in buildings located in Seismic Design Categories D₀, D₁ and D₂ shall be supported on continuous foundations

R403 1 3 6 Isolated concrete footings In detached one- and two-family dwellings that are three stories or less in height and constructed with stud bearing walls, 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 not have a slope 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 footings or where the slope of the bottom surface of the footings will exceed 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 No. 4 rebar 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 2016 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

14.04.282 – Section R501.1 of the 2016 California Residential Code is amended to read as follows

R501.1 Application The provisions of this chapter shall control the design and construction of the floors for buildings, including the floors of attic spaces used to house mechanical or plumbing fixtures and equipment Mechanical or plumbing fixtures and equipment shall be attached (or anchored) to the structure in accordance with Section R301.2.2.3.8

14.04.285 - Lines 35 thru 36 of Table R602.3(1) of the 2016 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 – Footnote b of Table R602.3(2) of the 2016 California Residential Code is amended to read as follows:

b Staples shall have a minimum crown width of 7/16-inch on diameter as noted Use of staples in roof, floor, subfloor, and braced wall panels shall be prohibited in Seismic Design Category D₀, D₁, or D₂

14.04.295 - Figure R602.10.6.2 of the 2016 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 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

14.04.315 - Section R902.1.1.1 is added to the 2016 California Residential code to read as follows:

All roofing material in the very-high and moderate fire hazard severity zone must be class A 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 All other roof covering materials in other zones shall be class A or B

Exception: In the moderate fire hazard zone, the fire code official may, upon a showing of good cause and necessity, approve 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 structure

14.04.400 – Section AV100.3.1 is added to the 2016 California Residential Code to read as follows:

Enclosure (fence) required In addition to the requirements in the California Residential Code, a barrier/enclosure 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 per section AV100 3 of the California Residential Code

California Green Building Standards Code

14.04.500 - Section 101.3 of the 2016 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 otherwise 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 301.3 of the 2016 California Green Building Standards Code is amended to read as follows:

Nonresidential additions and alterations The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions and/or building alterations (for occupancies within the authority of California Building Standards Commission) Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings {N} or to additions and alterations {A} When the code section applies to both, no banner will be used

14.04.504 - Section 307 is added to the 2016 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

Note 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 4.106.5.1 through 4.106.5.4 are added to the 2016 California Green Building Standards Code as follows:

4 106 5 1 Cool Roof For new buildings and additions or alterations to existing roof framing, roofing materials must comply with sections 4 106 5 2 - 4 106 4 and table 4 106 5

4 106 5 2 Cool Roof for Reduction of Heat Island Effect Roofing material shall comply with the following

4 106 5 3 Solar Reflectance Roofing material shall have a minimum 3-year aged solar reflectance equal to or greater than the values specified in Table 4 106 5

4 106 5 4 Thermal Emittance Roofing materials shall have a Cool Roof Rating Council (CRRC) initial or aged thermal emittance equal to or greater than those specified in Table 4 106 5

Solar reflectance values shall be based on the aged reflectance value of the roofing product or the equation in Section A4 106 5 1 if the CRRC certified aged solar reflectance are not available Certified thermal emittance used in the Solar Reflectance Index Calculation Worksheet (SRI-WS) developed by the Energy Commission may be either the initial value or the aged value listed by the CRRC

Exceptions:

- 1 Roof repair,
- 2 Roof replacement when the roof area being replaced is equal to or less than 50% of the total roof area, or
- 3 Building-integrated photovoltaic (BIPV)

TABLE 4 106 5

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
≤2 12	0 65	0 75
>2 12	0 23	0 75

14.04.510 - Sections 4.202 - 4.202.1.1 are added to the 2016 edition of the California Green Buildings Standards Code to read as follows.

Section 4 202 Renewable Energy Sections 4 202 1 and 4 202 1 1 shall apply to residential, multifamily, mixed use buildings

4 202 1 Space fore Future Electrical Solar System Installation [N] Comply with Section 110 10 of the California Energy Code 4 202 1 1 Future access for Electrical Solar System [N] For new buildings or when an existing service is relocated to new construction area, a minimum of one inch electrical conduit shall be provided from the electrical service equipment to an accessible location of the attic or other location suitable for future connection to a solar system The conduit shall be labeled as future access for electrical solar system The electrical panel shall be sized to accommodate the installation of future electrical solar system

Exception: Buildings not required to provide a solar zone per Section 110 10 of the California Energy Code

14.04.516 - Section A4.106.5.3 of the 2016 California Green Building s Standards Code is deleted and Tables A4.106.5.1(1) through A4.106.5.1(4) of the 2016 California Green Buildings Standards Code are amended to read as follows.

A4 106 5 3 Solar Reflectance index alternative Solar Reflectance index (SRI) equal to or greater than the values

TABLE A4 106 5 1 (1)
TIER 1-LOW RISE RESIDENTIAL

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
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ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
≤2 12	0 68	0 85
>2 12	0 28	0 85

TABLE A4 106 5 1 (2)
TIER 2-LOW-RISE RESIDENTIAL

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
≤2 12	0 70	0 85
>2 12	0 34	0 85

TABLE A4 106 5 1(3)
TIER 1 - HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND MOTELS

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
≤2 12	0 68	0 85
>2 12	00 28	0 85

TABLE A4 106 5 1(4)
TIER 2 - HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND MOTELS

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE
≤2 12	0 70	0 85
>2 12	0 34	

14.04.526 - Section A5.106.11.2.3 of the 2016 California Green Building Standards Cods is deleted and Tables A5.106.11.2.2 {BSC} and A5.106.11.2.3 of the 2016 edition of the California Green Building Standards Code are amended to read as follows.

TABLE A5 106 11 2 2 [BSC]
TIER 1

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
<2 12	0 68	0 85	
>2 12	0 28	0 85	

TABLE A5 106 11 2 3

TIER 2 ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
<2 12	0 70	0 85	
>2 12	0 34	0 85	

SECTION 4. Title 14, 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 otherwise provided for in the 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 alarms systems, and the general supervision thereof for the purpose of combating and control of fire and fire hazard and abatement 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, 2016 edition (California Fire Code) in its entirety, as published by the International Code Council and including Appendix Chapter 4 and Appendices B through ID, and IN, 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 publication is on file for public inspection and they are adopted and incorporated herein as if fully set forth in this chapter

B By amending the California Fire Code by amending section 14 28 020 in its entirety to read as follows

14.28.020 - Changes and additions to the adopted code.

1. Section 101 1 of Chapter 1 of the 2016 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 2016 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 2016 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 of Chapter 1 of the 2016 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.

5. Section 108 of Chapter 1 of the 2016 California Fire Code is deleted in its entirety.

6. Section 109 3 of Chapter 1 of the 2016 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.

7. Section 111 4 of Chapter 1 of the 2016 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.

8. Section 510 of the 2016 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

9. Section 510 3 of the 2016 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 exists

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

10. Chapter 6 of the 2016 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.

11. Section 903 of the 2016 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.

12. Section 903 of the 2016 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

13. Section 903 of the 2016 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

14. Section 903 of the 2016 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

15. Section 903 of the 2016 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

16. Section 907 of the 2016 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.

17. Section 907 of the 2016 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

18. Section 908 of the 2016 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

19. Section 1008 1 10 of the 2016 California Fire Code is amended by deleting the exception

20. Section 2403 2 of the 2016 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

21. Section 2701 of the 2016 California Fire Code 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

22. Section 2703 of the 2016 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

23. The first paragraph of Section 3404 2 7 4 of the 2016 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

24. Section 3404 2 7 5 8 of the 2016 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.

25. Section 3404 2 8 14 of the 2016 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.

26. Section 3404 2 9 6 1 of the 2016 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.

27. Section 3406 2 4 4 of the 2016 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.

28. Section 3506 2 of the 2016 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.

29. Section 3801 3 of the 2016 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.

30. Section 3801 of the 2016 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.

31. Section 3804 2 of the 2016 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).

32. Section 4603 6 9 7 of the 2016 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

33. Section 4901 of the 2016 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

34. Section 4905 2 1 of the 2016 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

35. Section 4906 2 of the 2016 California Fire Code 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

36. Appendix A of the 2016 California Fire Code is deleted in its entirety

37. Exception 1 in Section B105 2 of Appendix B of the 2016 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. Table B105 2 is amended by replacing "25%" with "50%" wherever "25%" appears in the Table

38. Section D103 6 of Appendix D of the 2016 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

39. Appendices J through M of the 2016 California Fire Code are deleted in their entirety

C By amending Section 14 28 040 to read as follows

14.28.040 – Board of Appeals

All sections in the respective 2016 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 alternative material and methods of construction and to provide for reasonable interpretation of the provisions of these codes, there shall 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 the investigations and shall render all its decisions and findings on contested matters in writing to the building fire code official with a duplicate copy thereof to any appellant or contestant affected by any such decision or findings, and may recommend to the city council such new legislation, if any, as is consistent therewith.

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 reasonably determine necessary in order to assist it in its investigation and in making its findings and decisions.

SECTION 5. This ordinance shall take effect 30 days after its publication

Signed and approved this _____ day of _____, 2016

Terry Tornek
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 ___ day of _____, 2016, by the following vote

Ayes

Noes

Absent

Abstain

Date Published

Mark Jomsky, CMC
City Clerk

Approved as to form



Frank L. Rhemrev
Assistant City Attorney