

ORDINANCE NO. 1217

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF VERNON AMENDING VARIOUS SECTIONS OF CHAPTERS 7, FIRE REGULATIONS AND 24, BUILDING AND CONSTRUCTION, OF THE VERNON MUNICIPAL CODE, ALONG WITH AMENDMENTS, ADDITIONS AND DELETIONS AND ADOPTING BY REFERENCE THE FOLLOWING CODES: (1) THE 2013 CALIFORNIA FIRE CODE, 24 CCR PART 9; (2) THE 2013 CALIFORNIA BUILDING CODE, 24 CCR PART 2; (3) THE 2013 CALIFORNIA ELECTRICAL CODE, 24 CCR PART 3 (4) THE 2006 EDITION OF THE ICC ELECTRICAL CODE ADMINISTRATIVE PROVISIONS; (5) THE 2013 CALIFORNIA MECHANICAL CODE, 24 CCR PART 4; (6) THE 2013 CALIFORNIA PLUMBING CODE, 24 CCR PART 5; (7) THE 2013 CALIFORNIA EXISTING BUILDING CODE, 24 CCR PART 10; (8) THE 2012 INTERNATIONAL EXISTING BUILDING CODE, (9) THE 2013 CALIFORNIA RESIDENTIAL CODE, 24 CCR PART 2.5; (10) THE 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE ALSO CALLED THE CALGREEN CODE, 24 CCR PART 11; (11) THE 2013 CALIFORNIA ENERGY CODE, 24 CCR PART 6; REPEALING ALL PRIOR ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT THEREWITH AND MAKING EXPRESS FINDINGS AND DETERMINATIONS THAT MODIFICATIONS TO SAID CODES ARE REASONABLY NECESSARY BECAUSE OF LOCAL CLIMATIC, GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS.

WHEREAS, the City of Vernon by Ordinance Nos. 1176 and 1177 adopted the following codes with certain modifications and changes, the 2010 California Fire Code, 2010 California Building Code, 2010 California Electrical Code, 2006 International Code Council Electrical Code Administrative Provisions, 2010 California Mechanical Code, 2010 California Plumbing Code, 2010 California Existing Building Code, and 2009 International Existing Building Code[®]; and

WHEREAS, the City codified said Ordinance in Chapters 7 and 24 of the Vernon Municipal Code; and

WHEREAS, every three years, the California Building Standards Commission (“Commission”) adopts the California Building Standards Code (“CBSC”) Title 24 of the California Code of Regulations, which establish uniform standards for all occupancies in the state for the construction and maintenance of buildings, plumbing systems, mechanical systems, electrical systems and fire and life safety systems; and

WHEREAS, since the passage of Ordinance Nos. 1176 and 1177, the Commission adopted a new edition of the CBSC which shall apply to all occupancies and become effective on January 1, 2014; and

WHEREAS, California Health and Safety Code Sections 17958, 17958.5 and 17958.7, allow certain amendments to CBSC to be made by a local government provided express findings are made to show that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, the amendments, deletions and additions to the CBSC set forth in this Ordinance are based upon the express findings set forth herein; and

WHEREAS, pursuant to Sections 50022.2 et seq. of the California Government Code, which authorizes the City to adopt the CBSC and other uniform and model codes, the City intends to adopt with amendments: (a) the 2006 Edition of the International Code Council Electrical Code Administrative Provisions, (b) Chapters A2 and A5 and repair criteria of the 2012 International Existing Building Code, published by the International Code Council, as the minimum seismic retrofit requirements for buildings of tilt-up and concrete frame construction

types for those property owners who voluntarily propose to retrofit their buildings, and (c) the Uniform Code for Abatement of Dangerous Buildings, 1997 Edition, published by the International Conference of Building Officials which code was previously adopted in Ordinance No. 1073, remains unchanged, and shall be the standard for the repair of structures damaged during a disaster event; and

WHEREAS, the administrative amendments to the CBSC provide for a Board of Appeals and authorize the City Council to determine the membership of said Board of Appeals; and

WHEREAS, pursuant to Government Code Section 50022.3, the City Council on November 19, 2013, gave a first reading to this Ordinance and the titles of said codes to be adopted and standards, and a duly noticed public hearing was held on December 3, 2013, for the purpose of considering the adoption of said Codes.

THE CITY COUNCIL OF THE CITY OF VERNON HEREBY ORDAINS:

SECTION 1. Recitals. The City Council of the City of Vernon hereby finds and determines that all of the foregoing recitals are true and correct.

SECTION 2. 2013 California Fire Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Fire Code as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 9, including appendices A, B, BB, D, and H and all standards contained therein, including all applicable tables, indices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Fire Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 3. 2013 California Building Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Building Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 2, Volumes 1 and 2, Appendices H and J, and all standards contained therein, including all applicable tables, indices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Building Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 4. 2013 California Residential Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Residential Code and Appendix G thereof, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 2.5, including all of its tables, indices, appendices and footnotes. Except as otherwise provided herein, or as later amended, said California Residential Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 5. 2013 California Electrical Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Electrical Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 3, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Electrical Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 6. 2006 International Code Council Electrical Code Administrative Provisions Adopted. The City of Vernon hereby adopts by reference the 2006 International Code Council Electrical Code Administrative Provisions, as published by the International Code Council Inc., including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein or later amended, said International Code Council Electrical Code Administrative

Provisions is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 7. 2013 California Plumbing Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Plumbing Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 5, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Plumbing Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 8. 2013 California Mechanical Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Mechanical Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 4, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Mechanical Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 9. 2013 California Existing Building Code Adopted. The City of Vernon hereby adopts by reference Appendix Chapter A1 of the 2013 California Existing Building Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 10, including all tables, indices, appendices, addenda and footnotes contained therein. Except as otherwise provided herein, or as later amended, said California Existing Building Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 10. 2012 International Existing Building Code Adopted. The City of Vernon hereby adopts by reference the 2012 International Existing Building Code, as published by the International Code Council, Inc., including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said 2012 International Existing Building Code, is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 11. 2013 California Green Building Standards Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Green Building Standards Code, also known as CALGreen Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 11, including applicable tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Green Building Standards Code is hereby referred to and by such reference is incorporated herein as if fully set forth. The voluntary provisions in Appendix Chapter A-4 and Chapter A-5 are not adopted as mandatory compliance features at this time.

SECTION 12. 2013 California Energy Code Adopted. The City of Vernon hereby adopts by reference the 2013 California Energy Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 6, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Energy Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 13. Section 7.10 of Chapter 7 of the Vernon Municipal Code is hereby amended to read as follows:

Sec. 7.10. 2013 California Fire Code, adopted.

The City of Vernon hereby adopts by reference the 2013 California Fire Code as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 9,

including appendices A, B, BB, D, and H and all standards contained therein, including all applicable tables, indices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Fire Code is hereby referred to and by such reference is incorporated herein as if fully set forth and are hereby adopted by reference as the Fire Code of the City of Vernon.

SECTION 14. Section 7.12 of Chapter 7 of the Vernon Municipal Code is hereby amended to read as follows:

Sec. 7.12. Amendments, additions, and deletions.

The 2013 California Fire Code is hereby amended as follows:

(a) Section 104.7.2, technical assistance, of the 2013 Edition of the California Fire Code is hereby amended to add the following sentence to the end of the paragraph to read as follows:

When there is a fire, explosion, hazardous materials incident, or other potential life or serious property threatening situation, the fire code official can request the owner, occupant, or operator to hire a private fire protection or hazardous materials investigator, acceptable to the fire code official and at the expense of the owner or operator, to provide a full report of the incident, including, without limitation, such matters as origin, cause, circumstances or proposed solutions to the problem.

(b) Section 104.12 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

104.12 False alarms. The fire code official is authorized to assess a service charge, as set forth by resolution, against the person owning or responsible for an alarm system when a fire department response occurs as a result of the third false alarm at the same address or location within any twelve month period, and for each subsequent false alarm thereafter, or against any person who intentionally, or in violation of the law reports, or causes to be reported, a false alarm to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the City of Vernon Fire Department.

(c) Section 104.13 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

104.13 Vehicle/trailer creating hazard. Whenever it is determined by a fire code official or his representative that an unattended or attended vehicle/trailer parked or stopped upon any public street, road, alley, right-of-way, or upon private property, creates an immediate danger or fire hazard to itself, other vehicles, persons, or surrounding property, the fire code official shall request the local law enforcement agency to cause the removal of the vehicle/trailer to a safe location, and the local law enforcement agency shall cause the removal at the expense of the registered owner of the vehicle/trailer, and a notice of the removal shall be given to the registered owner as soon as feasible.

(d) Section 104.14 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

104.14 Outside obstructions. No person shall park or place any material or vehicle in any established exit way, driveway, gateway, or alleyway between buildings that would hamper the ingress of fire equipment in case of a fire, explosion, hazardous materials incident, or other potential life or serious property threatening situation. When in the opinion of the fire code official

or his representative, any driveway, gateway, or alleyway between buildings is so obstructed by objects, materials, or vehicles as to impede the ingress or egress of said way, it shall be removed immediately upon order of the fire code official or his representative. When such obstruction is a vehicle, it may be removed or impounded at the owner's expense and as prescribed by law.

(e) Section 104.15 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

104.15 Fire safety officer. When in the opinion of the fire code official, it is necessary for the preservation of life and property, due to the hazardous nature of an event, production, operation, or function, the fire code official shall require the owner, agent, production company, or lessee to employ or cause the employment of one or more fire department safety officers to be on duty at such place during such activity.

(f) Section 105.1.4 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.1.4 Investigation fees; work without a permit. Whenever any work, operation or action for which a permit is required by this code has been commenced without first obtaining said permit, an investigation shall be made before a permit may be issued for such work. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then subsequently issued. The investigation fee shall be double the amount of the permit fee set forth in the fee schedule. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code, nor from any penalty prescribed by law.

(g) Section 105.1.1 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.1.1 Permits required. Permits required by this code shall be obtained from the fire code official. Issued permits shall be conspicuously displayed on the premises designated therein at all times and shall be readily available for inspection by code officials. Permit fees shall be as set forth in a fee schedule adopted by resolution by the City Council.

(h) Section 105.6.25 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

105.6.25 Lumber yards, woodworking plants, and pallet storage. A permit is required for storage or processing of lumber exceeding 100,000 board feet (8,333ft³) (236m³), or outside pallet storage in excess of 240 units and inside storage in excess of 64 units.

(i) Section 105.6.48 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.6.48 General use permit. In addition to the permits required by Section 105.6, a general use permit shall be obtained from the fire code official for any activity or operation not specifically addressed in this article, which in the judgment of the fire code official, is possible or likely to produce conditions hazardous to life or property.

(j) Chapter 1, Section 105.7.15 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.7.15 High-piled storage. A construction permit is required for installation or modification of

high-piled combustible storage in racks. When using any building or portion thereof exceeding twenty-five hundred (2,500) square feet for high-piled combustible storage in racks, a floor plan showing the dimensions and location of the rack system shall be submitted with the application for such permits.

(k) Section 105.7.16 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.7.16 Roof obstructions. A construction permit is required for installation of a roof photovoltaic system when constructed on a building's roof that covers more than 50% or 10,000 square feet of the total surface area whichever is less.

Exceptions:

1. Buildings that are four or more stories in height and protected with an approved automatic fire extinguishing system throughout.
2. Non-habitable structures including but not limited to shade structures, private carports, solar trellises, etc.

(l) Section 105.8 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

105.8 Responsibility of permittee. Fire permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto, whether specified or not. No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of this code.

(m) Section 113.6 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

113.6 Fees for services, establishment; review. The fire code official is authorized to collect fees for services established or modified by resolution of the City Council. The fire code official shall review fees charged for such services at least annually and shall, with approval of the City Administrator, recommend changes to the council when costs for such services make it appropriate.

(n) Section 113.7 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

113.7 Operational permit fees. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all operational permits required pursuant to the provisions of this code.

(o) Section 113.8 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

113.8 Construction permit fees. Construction permit fees shall be paid at the time of the permit issuance. In addition to the permit fee, the applicant shall pay a plan check fee. The fee set forth and established for the particular activity by a resolution of the City Council shall accompany all construction permits required pursuant to the provisions of this code.

(p) Section 113.9 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

113.9 Re-inspection fee. Whenever an inspection is scheduled under Section 105.2.2 and the permittee is not ready for inspection and does not inform the fire code official or his delegate at least 2 hours prior to the scheduled inspection, a re-inspection fee may be assessed.

(q) Section 114 is hereby added to Chapter 1 of the 2013 Edition of the California Fire Code to read as follows:

SECTION 114 – RESPONSIBILITY

114.1 Responsibility for costs. Persons who personally or through another, willingly, negligently, or in violation of law set a fire, allow a fire to be set, allow a fire kindled or attended by them to escape from their control, allow any hazardous material to escape from their control, neglect to properly comply with any written notice of the fire chief, or willfully or negligently allow the continuation of a violation of this code and amendments thereto, are liable for the direct and indirect expenses of fighting the fire, any investigation, or for direct and indirect expenses incurred during a hazardous materials incident. Such expenses shall be a charge against that person. Such charge shall constitute a debt of such person, and is collectible by the City in the same manner as in the case of an obligation under a contract, expressed or implied and a lien may be attached to the involved property.

(r) The definitions of “awning,” “false alarm,” “fire chief,” “fire code official,” “fire safety officer,” and “safety container” are hereby added to Section 202 of Chapter 2 of the 2013 Edition of the California Fire Code in alphabetical order to read as follows:

AWNING. An architectural projection that provides weather protection, identity, or decoration and is wholly supported by the building to which it is attached. An awning is comprised of a lightweight frame structure over which a covering is attached.

FALSE ALARM. The willful and knowing initiation or transmission of a signal, message or other notification of an event of fire when no such danger exists, or the activation of any fire alarm system due to malfunction, mechanical or electrical defect, improper operation or procedure by any person, or a false oral or written report to any department of the City of Vernon that an emergency exists requiring immediate or emergency response by the Vernon Fire Department.

FIRE CHIEF. The chief officer of the fire department serving the jurisdiction or his/her designee.

FIRE CODE OFFICIAL. The fire chief or other member of the fire service appointed by the fire chief charged with the administration and enforcement of this code.

FIRE SAFETY OFFICER. A sworn member of the fire department serving the jurisdiction assigned to preserve life and property at a location, due to the hazardous nature of the activity of an event, production, operation, or function.

SAFETY CONTAINER. An approved container of not over 5 gallons capacity, having a self-closing lid and spout cover.

(s) Section 304.1.1.1 of the 2013 Edition of the California Fire Code is hereby added to read as follows:

304.1.1.1 Waste material near photovoltaic array system. Accumulation of waste material shall not be permitted underneath nor within 10 feet from a mounted photovoltaic array system.

(t) Section 311.2.2 Exceptions 1 and 2, of the 2013 Edition of the California Fire Code are hereby deleted.

(u) Section 312.2 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

312.2 Guard posts. Guard posts shall comply with all of the following requirements:

1. Constructed of steel not less than 8 inches (204mm) in diameter and concrete filled.
2. Spaced no more than 4 feet (1219mm) between posts on center.
3. Set not less than 4 feet (1219mm) deep in a concrete footing of not less than 18 inches (457.2 mm) in diameter.
4. Set with the top of the posts not less than 4 feet (1219mm) above ground.
5. Located not less than 3 feet (914 mm) from the protected object.
6. Posts shall be painted safety yellow.

(v) Section 315.4.3 is hereby added to Chapter 3 of the 2013 Edition of the California Fire Code to read as follows:

315.4.3 Pallet storage height and total accumulation for storage. Pallet storage in the open shall not exceed 15 feet (4,572 mm) in height and a total aggregate content not exceeding 6,750 cubic feet. Aisle separation of 15 feet (4,572 mm) is required before the next pile or stack is created. Storage of pallets in excess of 240 pallets requires a permit per Sec. 105.6.25.

(w) Section 315.4.4 is hereby added to Chapter 3 of the 2013 Edition of the California Fire Code to read as follows:

315.4.4 Pallets. All pallets must be stacked so that there is visibility through the stacks to the adjacent aisles, or so organized to assure that no temporary living facilities or places of refuge are hidden from view. Pallets shall be stacked or piled with due regard to the stability of piles, and in no case higher than 15 feet (4,572 mm).

(x) Section 315.4.4.1 is hereby added to Chapter 3 of the 2013 Edition of the California Fire Code to read as follows:

315.4.4.1 Clearance around pallets. Aisles between and around open pallet stacks shall be at least 15 feet (4,572 mm) in width and maintained free from accumulated rubbish, equipment, or other articles or materials.

(y) Chapter 3, Section 315.4.4.2 is hereby added to Chapter 3 of the 2013 Edition of the California Fire Code to read as follows:

315.4.4.2 Pallet storage next to structure/awning. When pallets are stored near a structure/awning, the height of the storage shall be restricted to no higher than the structure/awning and cannot exceed the height of the structure/awning, or 15 feet (4,572 mm), whichever is less.

(z) Section 503.2.1 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

503.2.1. Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 27 feet (8,229 mm) and an unobstructed vertical clearance of not less than 15 feet (4,472 mm).

(aa) Section 505.1 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be a minimum of 12 inches high with a minimum width of 2 inches. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

(bb) Section 507.5 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

507.5. Fire hydrant systems. When any portion of the facility or building protected is in excess of 150 feet from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the fire code official.

(cc) Section 507.5.5 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

507.5.5. Clear space around hydrants. Clear space of 31 feet (9448.8 mm) in front of, 4 feet (914 mm) in rear of and 10 feet (3048 mm) on both sides shall be maintained around each onsite hydrant.

(dd) Section 901.4.7 is hereby added to Chapter 9 of the 2013 Edition of the California Fire Code read as follows:

901.4.7 Protection of fire protection systems and equipment. Fire protection systems and equipment subject to possible vehicular damage shall be adequately protected with guard posts in accordance with Section 312 Vehicle Impact Protection, and modifications adopted under this code.

(ee) Section 2404.2 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

2404.2. Location of spray-finishing operations. All inside or outside spray-finishing operations shall be conducted in an approved spray booth constructed in accordance with Section 2404.

(ff) Section 5601.1 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

5601.1. Prohibited and limited acts. Explosive materials shall not be manufactured, tested or stored within the limits of the City of Vernon.

(gg) Section 5704.2.9.6.1 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

5704.2.9.6.1. Locations where above-ground tanks are prohibited. Storage of Class I and Class II liquids in above ground tanks outside of buildings within the City of Vernon and in areas 1,000 feet (304,800 mm) or more from the outside boundary of a kindergarten through 12th grade public school shall be in approved containers not exceeding 10,000 gallons in size. In areas of a lot or parcel within 1,000 feet (304,800 mm) of the outside boundary of said school,

the only Class I or Class II liquids approved for storage in above ground tanks is diesel fuel which shall be in approved containers and shall be limited to either two (2) 1,000 gallon tanks or one (1) 2,000 gallon tank.

(hh) Section 6101.4 is hereby added to Chapter 61 of the 2013 Edition of the California Fire Code to read as follows:

6101.4 Inside storage or use. No LP-gases of any type or mixture shall be permitted in any occupancy either for sale, use or storage without approval of the fire code official.

(ii) Section 6103.2.2.1 is hereby added to Chapter 61 of the 2013 Edition of the California Fire Code to read as follows:

6103.2.2.1 Portable containers on motorized equipment. The use of portable containers of LP-gas as motorized equipment fuel in occupancies is limited as follows: LP-gas fuel tanks on motorized equipment are limited to two per vehicle with a combined capacity not to exceed 50 pounds. Refilling of tanks shall not be permitted within the occupancy and shall be permitted only in approved locations determined by the fire code official.

(jj) Section 6104.1 of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

6104.1. Storage of liquefied petroleum gases. Storage and transportation of LP-gas and the installation and maintenance of pertinent equipment shall be in accordance with NFPA 58 and shall be subject to the approval of the fire code official. Storage is permitted within the limits of the City of Vernon except within 1,000 feet (304,800 mm) of a kindergarten through 12th grade public school.

Exception: Storage of LP-gas not exceeding 2,000 gallons per parcel in approved containers is permitted in all areas within the limits of the City of Vernon.

(kk) Section 6104.3.3 is hereby added to Chapter 61 of the 2013 Edition of the California Fire Code to read as follows:

6104.3.3 Tank orientation. Unless special protection is provided and approved by the fire code official, containers of LP-gas shall be oriented so that their longitudinal axes do not point toward other LP-gas containers, vital process equipment, control rooms, loading stations, flammable liquid storage tanks or required fire access roads.

(ll) Appendix C, of the 2013 Edition of the California Fire Code is hereby deleted.

(mm) Section D103.1 of Appendix D of the 2013 Edition of the California Fire Code is hereby amended to read as follows:

D103.1. Access road. The dimension of the fire access road turnarounds shall be in accordance with City of Vernon standards.

SECTION 15. Section 7.11 of Chapter 7 of the Vernon Municipal Code is hereby amended to read as follows:

- (a) Whenever the word "jurisdiction" is used in the California Fire Code, it shall be held to mean the City.
- (b) Whenever the term "corporation counsel" is used in the California Fire Code, it shall be held to mean the attorney for the City.

SECTION 16. Section 7.12-1 of Chapter 7 of the Vernon Municipal Code is hereby amended to read as follows:

Sec. 7.12-1. Enactment of penalty sections. All offenses set forth in this Article II shall be enforced pursuant to this Ordinance and section 1.8-1 of the Vernon Municipal Code.

SECTION 17. Section 7.13 of Chapter 7 of the Vernon Municipal Code is hereby amended to read as follows:

Sec. 7.13. Application for permit and issuance.

All applications for permits to construct as required under the provisions of the California Fire Code shall be accompanied by plan check and permit fees established in a fee schedule adopted by the city council.

(a) To obtain a permit, the applicant shall first file an application therefor in writing on a form furnished by the director of community services for that purpose.

(b) Plans, engineering calculations, diagrams and other data shall be submitted in a minimum of four sets with each application for a permit. The director of community services may require plans and calculations to be prepared and designed by an engineer licensed by the State to practice as such.

(c) Permit issuance shall be in accordance with the provisions of the California Building Code as adopted and may be amended by the City Council of the City of Vernon.

SECTION 18. Section 24.10 of Article II of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.10. 2013 California Building Code, adopted. The City of Vernon hereby adopts by reference the 2013 California Building Code as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 2. Volumes 1 and 2, and Appendices H and J, and all standards contained therein, including all applicable tables, indices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Building Code is hereby referred to and by such reference is incorporated herein as if fully set forth and is hereby adopted by as the Building Code of the City of Vernon.

SECTION 19. Section 24.11 of Article II of Chapter 24 the Vernon Municipal Code is hereby amended to read as follows:

Sec. 24.11. Building Code amendments, additions, and deletions. The 2013 California Building Code is hereby amended as follows:

(a) Section 105.8 is hereby added to Chapter 1 of the 2013 Edition of the California Building Code to read as follows:

105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Section 110.7 is hereby added to Chapter 1 of the 2013 Edition of the California Building Code to read as follows:

110.7 Reinspection. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) Section 111.1 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

111.1 Use and occupancy. No building or structure shall be used or occupied, and no change in the existing use or occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefore as provided herein. 'Change in Use' shall include, but not be limited to, any change in occupancy classification or any change of tenancy of a building for which a new business license or certificate of occupancy is required under the Code of the City of Vernon. When determined by the building official that a special inspection is required to determine compliance with the Code of the City of Vernon or with this code for a certificate of occupancy, an inspection fee shall be paid as set forth by resolution of the City Council. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of the Code of the City of Vernon, of this code, or of any other ordinances of this jurisdiction. A certificate of occupancy which presumes to give authority to violate or cancel the provisions of the Code of the City of Vernon, of this code, or of any other ordinance shall not be valid.

Exception: Certificates of occupancy are not required for work exempt from permits under Section 105.2. A certificate of occupancy shall not be required for a change in Tenancy of a Group R Occupancy.

(d) Section 1505.1 of the 2010 Edition of the California Building Code is hereby amended to read as follows:

1505.1 Roof assembly requirements. The roof assembly on any structure regulated by this code shall be as specified in Table 1505.1 except that only fire retardant roof coverings meeting class A or B roofing assemblies are permitted in the City of Vernon. Roof coverings required to be listed by this section shall be tested in accordance with ASTM E 108 or UL 790. The roofing assembly includes the roof deck, underlayment, interlayment, insulation and covering, which is assigned a roof classification.

Exception: Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

(e) Section 1507.3.1 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1507.3.1 Deck requirements. Concrete and clay tile shall be installed only over solid structural sheathing boards.

(f) Section 1613.6 is added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.6 ASCE 7, 12.12.3 Modify ASCE 7 Equation 12.12-1 of Section 12.12.3 to read as follows:

$$\frac{\delta_M}{I_e} = \frac{C_d \delta_{max}}{I_e} \quad (12.12-1)$$

where:

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

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

I_e = Importance factor

(g) Section 1613.7 is added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.7 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.

(h) Section 1613.8 is hereby added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.8 ASCE 7, Section 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.

(i) Section 1613.9 is hereby added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.9 Seismic Design Provisions for Hillside Buildings.

1613.9.1 Purpose. The purpose of this section is to establish minimum regulations for the design and construction of new buildings and additions to existing buildings when constructing such buildings on or into slopes steeper than one unit vertical in three units horizontal (33.3%). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes.

1613.9.2 Scope. The provisions of this section shall apply to the design of the lateral-force-resisting system for hillside buildings at and below the base level diaphragm. The design of the lateral-force-resisting system above the base level diaphragm shall be in accordance with the provisions for seismic and wind design as required elsewhere in this division.

Exception: Non-habitable accessory buildings and decks not supporting or supported from the main building are exempt from these regulations.

1613.9.3 Definitions. For the purposes of this section certain terms are defined as follows:

BASE LEVEL DIAPHRAGM is the floor at, or closest to, the top of the highest level of the foundation.

DIAPHRAGM ANCHORS are assemblies that connect a diaphragm to the adjacent foundation at the uphill diaphragm edge.

DOWNHILL DIRECTION is the descending direction of the slope approximately perpendicular to the slope contours.

FOUNDATION is concrete or masonry which supports a building, including footings, stem walls, retaining walls, and grade beams.

FOUNDATION EXTENDING IN THE DOWNHILL DIRECTION is a foundation running downhill and approximately perpendicular to the uphill foundation.

HILLSIDE BUILDING is any building or portion thereof constructed on or into a slope steeper than one unit vertical in three units horizontal (33.3%). If only a portion of the building is supported on or into the slope, these regulations apply to the entire building.

PRIMARY ANCHORS are diaphragm anchors designed for and providing a direct connection as described in Sections 1613.9.5 and 1613.9.7.3 between the diaphragm and the uphill foundation.

SECONDARY ANCHORS are diaphragm anchors designed for and providing a redundant diaphragm to foundation connection, as described in Sections 1613.9.6 and 1613.9.7.4.

UPHILL DIAPHRAGM EDGE is the edge of the diaphragm adjacent and closest to the highest ground level at the perimeter of the diaphragm.

UPHILL FOUNDATION is the foundation parallel and closest to the uphill diaphragm edge.

1613.9.4 Analysis and Design.

1613.9.4.1 General. Every hillside building within the scope of this section shall be analyzed, designed, and constructed in accordance with the provisions of this code. When the code-prescribed wind design produces greater effects, the wind design shall govern, but detailing requirements and limitations prescribed in this and referenced sections shall be followed.

1613.9.4.2 Base Level Diaphragm-Downhill Direction. The following provisions shall apply to the seismic analysis and design of the connections for the base level diaphragm in the downhill direction.

1613.9.4.2.1 Base for Lateral Force Design Defined. For seismic forces acting in the downhill direction, the base of the building shall be the floor at or closest to the top of the highest level of the foundation.

1613.9.4.2.2 Base Shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems. The total base shear shall include the forces tributary to the base level diaphragm including forces from the base level diaphragm.

1613.9.5 Base Shear Resistance-Primary Anchors.

1613.9.5.1 General. The base shear in the downhill direction shall be resisted through primary anchors from diaphragm struts provided in the base level diaphragm to the

foundation.

1613.9.5.2 Location of Primary Anchors. A primary anchor and diaphragm strut shall be provided in line with each foundation extending in the downhill direction. Primary anchors and diaphragm struts shall also be provided where interior vertical lateral-force-resisting elements occur above and in contact with the base level diaphragm. The spacing of primary anchors and diaphragm struts or collectors shall in no case exceed 30 feet (9144 mm).

1613.9.5.3 Design of Primary Anchors and Diaphragm Struts. Primary anchors and diaphragm struts shall be designed in accordance with the requirements of Section 1613.9.8.

1613.9.5.4 Limitations. The following lateral-force-resisting elements shall not be designed to resist seismic forces below the base level diaphragm in the downhill direction:

1. Wood structural panel wall sheathing,
2. Cement plaster and lath,
3. Gypsum wallboard, and
4. Tension only braced frames. Braced frames designed in accordance with the requirements of Section 2205.2.2 may be used to transfer forces from the primary anchors and diaphragm struts to the foundation provided lateral forces do not induce flexural stresses in any member of the frame or in the diaphragm struts. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.9.6. Base Shear Resistance-Secondary Anchors.

1613.9.6.1 General. In addition to the primary anchors required by Section 1613.9.5, the base shear in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in the base level diaphragm.

Exception: Secondary anchors are not required where foundations extending in the downhill direction spaced at not more than 30 feet (9144 mm) on center extend up to and are directly connected to the base level diaphragm for at least 70% of the diaphragm depth.

1613.9.6.2 Secondary Anchor Capacity and Spacing. Secondary anchors at the base level diaphragm shall be designed for a minimum force equal to the base shear, including forces tributary to the base level diaphragm, but not less than 600 pounds per lineal foot (8.76 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1613.9.6.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.9.8.

1613.9.7 Diaphragms Below the Base Level-Downhill Direction. The following provisions shall apply to the lateral analysis and design of the connections for all diaphragms below the base level diaphragm in the downhill direction.

1613.9.7.1 Diaphragm Defined. Every floor level below the base level diaphragm shall be designed as a diaphragm.

1613.9.7.2 Design Force. Each diaphragm below the base level diaphragm shall be designed for all tributary loads at that level using a minimum seismic force factor not less

than the base shear coefficient.

1613.9.7.3 Design Force Resistance-Primary Anchors. The design force described in Section 1613.9.7.2 shall be resisted through primary anchors from diaphragm struts provided in each diaphragm to the foundation. Primary anchors shall be provided and designed in accordance with the requirements and limitations of Section 1613.9.5.

1613.9.7.4 Design Force Resistance-Secondary Anchors.

1613.9.7.4.1 General. In addition to the primary anchors required in Section 1613.9.7.3, the design force in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in each diaphragm below the base level.

Exception: Secondary anchors are not required where foundations extending in the downhill direction, spaced at not more than 30 feet (9144 mm) on center, extend up to and are directly connected to each diaphragm below the base level for at least 70% of the diaphragm depth.

1613.9.7.4.2 Secondary Anchor Capacity. Secondary anchors at each diaphragm below the base level diaphragm shall be designed for a minimum force equal to the design force but not less than 300 pounds per lineal foot (4.38 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1219 mm) on center.

1613.9.7.4.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.9.8.

1613.9.8 Primary and Secondary Anchorage and Diaphragm Strut Design. Primary and secondary anchors and diaphragm struts shall be designed in accordance with the following provisions:

1. **Fasteners.** All bolted fasteners used to develop connections to wood members shall be provided with square plate washers at all bolt heads and nuts. Washers shall be minimum 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Nuts shall be tightened to finger tight plus one half (1/2) wrench turn prior to covering the framing.
2. **Fastening.** The diaphragm to foundation anchorage shall not be accomplished by the use of toenailing, nails subject to withdrawal, or wood in cross-grain bending or cross-grain tension.
3. **Size of Wood Members.** Wood diaphragm struts collectors, and other wood members connected to primary anchors shall not be less than three-inch (76 mm) nominal width. The effects of eccentricity on wood members shall be evaluated as required per Item 9.
4. **Design.** Primary and secondary anchorage, including diaphragm struts, splices, and collectors shall be designed for 125% of the tributary force.
5. **Allowable Stress Increase.** The allowable stress increase permitted under Section 1605.3.2 shall not be taken when the working (allowable) stress design method is used.
6. **Steel Element of Structural Wall Anchorage System.** The strength design forces for steel elements of the structural wall anchorage system, with the exception of anchor bolts and reinforcing steel, shall be increased by 1.4 times the forces otherwise required.
7. **Primary Anchors.** The load path for primary anchors and diaphragm struts shall be

- fully developed into the diaphragm and into the foundation. The foundation must be shown to be adequate to resist the concentrated loads from the primary anchors.
8. Secondary Anchors. The load path for secondary anchors and diaphragm struts shall be fully developed in the diaphragm but need not be developed beyond the connection to the foundation.
 9. Symmetry. All lateral force foundation anchorage and diaphragm strut connections shall be symmetrical. Eccentric connections may be permitted when demonstrated by calculation or tests that all components of force have been provided for in the structural analysis or tests.
 10. Wood Ledgers. Wood ledgers shall not be used to resist cross-grain bending or cross-grain tension.

1613.9.9 Lateral-Force-Resisting Elements Normal to the Downhill Direction.

1613.9.9.1 General. In the direction normal to the downhill direction, lateral-force-resisting elements shall be designed in accordance with the requirements of this section.

1613.9.9.2 Base Shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 5 for bearing wall and building frame systems.

1613.9.9.3 Vertical Distribution of Seismic Forces. For seismic forces acting normal to the downhill direction the distribution of seismic forces over the height of the building using Section 12.8.3 of ASCE 7 shall be determined using the height measured from the top of the lowest level of the building foundation.

1613.9.9.4 Drift Limitations. The story drift below the base level diaphragm shall not exceed 0.007 times the story height at strength design force level. The total drift from the base level diaphragm to the top of the foundation shall not exceed 3/4 inch (19 mm). Where the story height or the height from the base level diaphragm to the top of the foundation varies because of a stepped footing or story offset, the height shall be measured from the average height of the top of the foundation. The story drift shall not be reduced by the effect of horizontal diaphragm stiffness.

1613.9.9.5 Distribution of Lateral Forces.

1613.9.9.5.1 General. The design lateral force shall be distributed to lateral-force-resisting elements of varying heights in accordance with the stiffness of each individual element.

1613.9.9.5.2 Wood Structural Panel Sheathed Walls. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall deflection. Deflections of shear walls may be estimated by AF&PA SDPWS Section 4.3.2. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step. The minimum horizontal length of a step shall be eight feet (2438 mm) and the maximum vertical height of a step shall be two feet, eight inches (813 mm).

1613.9.9.5.3 Reinforced Concrete or Masonry Shear Walls. Reinforced concrete or masonry shear walls shall have forces distributed in proportion to the rigidity of each section of the wall.

1613.9.9.6 Limitations. The following lateral force-resisting-elements shall not be designed to resist lateral forces below the base level diaphragm in the direction normal to the downhill direction:

1. Cement plaster and lath,
2. Gypsum wallboard, and
3. Tension-only braced frames. Braced frames designed in accordance with the requirements of Section 2205.2.2 of this Code may be designed as lateral-force-resisting elements in the direction normal to the downhill direction, provided lateral forces do not induce flexural stresses in any member of the frame. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

1613.9.10 Specific Design Provisions.

1613.9.10.1 Footings and Grade Beams. All footings and grade beams shall comply with the following:

1. Grade beams shall extend at least 12 inches (305 mm) below the lowest adjacent grade and provide a minimum 24-inch (610 mm) distance horizontally from the bottom outside face of the grade beam to the face of the descending slope.
2. Continuous footings shall be reinforced with at least two No. 4 reinforcing bars at the top and two No. 4 reinforcing bars at the bottom.
3. All main footing and grade beam reinforcement steel shall be bent into the intersecting footing and fully developed around each corner and intersection.
4. All concrete stem walls shall extend from the foundation and reinforced as required for concrete or masonry walls.

1613.9.10.2 Protection Against Decay and Termites. All wood to earth separation shall comply with the following:

1. Where a footing or grade beam extends across a descending slope, the stem wall, grade beam, or footing shall extend up to a minimum 18 inches (457 mm) above the highest adjacent grade.

Exception: At paved garage and doorway entrances to the building, the stem wall need only extend to the finished concrete slab, provided the wood framing is protected with a moisture proof barrier.

2. Wood ledgers supporting a vertical load of more than 100 pounds per lineal foot (1.46 kN/m) and located within 48 inches (1219 mm) of adjacent grade are prohibited. Galvanized steel ledgers and anchor bolts, with or without wood nailers, or treated or decay resistant sill plates supported on a concrete or masonry seat, may be used.

1613.9.10.3 Sill Plates. All sill plates and anchorage shall comply with the following:

1. All wood framed walls, including nonbearing walls, when resting on a footing, foundation, or grade beam stem wall, shall be supported on wood sill plates bearing on a level surface.
2. Power-driven fasteners shall not be used to anchor sill plates except at interior nonbearing walls not designed as shear walls.

1613.9.10.4 Column Base Plate Anchorage. The base of isolated wood posts (not framed into a stud wall) supporting a vertical load of 4,000 pounds (17.8 kN) or more and the base plate for a steel column shall comply with the following:

1. When the post or column is supported on a pedestal extending above the top of a footing or grade beam, the pedestal shall be designed and reinforced as required for concrete or masonry columns. The pedestal shall be reinforced with a minimum of four No. 4 bars extending to the bottom of the footing or grade beam. The top of exterior pedestals shall be sloped for positive drainage.
2. The base plate anchor bolts or the embedded portion of the post base, and the vertical reinforcing bars for the pedestal, shall be confined with two No. 4 or three No. 3 ties within the top five inches (127 mm) of the concrete or masonry pedestal. The base plate anchor bolts shall be embedded a minimum of 20 bolt diameters into the concrete or masonry pedestal. The base plate anchor bolts and post bases shall be galvanized and each anchor bolt shall have at least two galvanized nuts above the base plate.

1613.9.10.5 Steel Beam to Column Supports. All steel beam to column supports shall be positively braced in each direction. Steel beams shall have stiffener plates installed on each side of the beam web at the column. The stiffener plates shall be welded to each beam flange and the beam web. Each brace connection or structural member shall consist of at least two 5/8 inch (15.9 mm) diameter machine bolts.

(j) Section 1613.10 is hereby added to Chapter 16 of the 2013 Edition of the California Building Code to read as follows:

1613.10 Suspended Ceilings. Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Section 2506.2.1 of this Code and this section.

1613.10.1 Scope. This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7-10 shall apply except as modified herein.

1613.10.2 General. The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

1613.10.3 Sprinkler Heads. All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile. Sprinkler heads and other penetrations shall have a 2 in. (50mm) oversize ring, sleeve, or adapter through the ceiling tile to allow for free movement of at least 1 in. (25mm) in all horizontal directions. Alternatively, a swing joint that can accommodate 1 in. (25 mm) of ceiling movement in all horizontal directions is permitted to be provided at the top of the sprinkler head extension. Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 714 of this Code.

1613.10.4 Special Requirements for Means of Egress. Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more shall comply with the following provisions.

1613.10.4.1 General. Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the

suspended ceiling assembly located along the means of egress or at the lobby.

1613.10.4.2 Assembly Device. All lay-in panels shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

1613.10.4.3 Emergency Systems. Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1006.3 of this Code.

1613.10.4.4 Supports for Appendage. Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

(k) Section 1704.5 of the 2013 Edition of the California Building Code is amended to read as follows:

1704.5 Structural Observations. Where required by the provisions of Section 1704.5.1 or 1704.5.2, the owner shall employ a structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

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

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

The owner and owner's representative shall submit a written report to the building official certified by the structural observer, contractors, subcontractors and special inspectors under penalty of perjury that said persons have identified the specific major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and that said persons have reviewed the scheduling of the required observations. Said specific major structural elements and connections and scheduling shall be submitted to the building official as an attachment to said written report.

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

(l) Section 1704.5.1 of the 2013 Edition of the California Building Code is amended to read as follows:

1704.5.1 Structural observations for seismic resistance. A report of the structural observations shall be provided to the building official by the structural observer 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

a 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.

(m) Section 1705.3 of the 2013 Edition of the California Building Code is amended to read as follows:

1705.3 Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and Table 1705.3.

Exceptions: Special inspection shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa) 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 in height that are fully supported on earth or rock where:
 - 2.1. The footings support walls of light-frame construction;
 - 2.2. The footings are designed in accordance with Table 1805.4.2; or
 - 2.3. The structural design of the footing is based on a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the construction documents or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).
4. Concrete patios, driveways and sidewalks, on grade.

(n) Table 1705.3 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

**TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION**

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD ^a	IBC REFERENCE
1. Inspection of reinforcing steel, including tendons, and placement	—	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. Inspection of reinforcing steel welding in accordance with Table 1705.2.2, Item 2b	—	—	AWS D1.4 ACI: 318: 3.5.2	—
3. Inspection of anchors cast in concrete where	—	X	ACI 318: D.9.2	1908.5.

allowable loads have been increased or where strength design is used.				
4. Inspection of anchors post-installed in hardened concrete members ^b a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	–	X	ACI 318: D.9.2.4 ACI 18:D.9.2	–
5. Verifying use of required design mix.	–	X	ACI: 318 Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	–	ASTM C 172, ASTM C31, ACI 318: 5.6, 5.8	1910.10
7. Inspection of concrete and shotcrete placement for application techniques.	X	–	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.	–	X	ACI 318: 5.11-5.13	1910.9
9. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic force resisting system.	X X	– –	ACI 318: 18.20 ACI 318: 18.18.4	–
10. Erection of precast members.	–	X	ACI 318: Ch 16	–
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and	–	X	ACI 318: 6.2	–

structural slabs.				
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	–	X	ACI 318: 6.1.1	–

For SI: 1 inch = 25.4 mm

- a. Where applicable, see also section 1705.11, Special inspections for seismic resistance.
- b. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 355.2 D.9.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

(o) Section 1705.11 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1705.11 Special inspections for seismic resistance. Special inspections itemized in Sections 1705.11.1 through 1705.11.8, unless exempted by the exceptions of Section 1704.2, are required for the following:

1. The seismic force-resisting systems in structures assigned to Seismic Design Category C, D, E or F in accordance with Sections 1705.11.1 through 1705.11.3, as applicable.
2. Designated seismic systems in structures assigned to Seismic Design Category C, D, E or F in accordance with Section 1705.11.4.
3. Architectural, mechanical and electrical components in accordance with Sections 1705.11.5 and 1705.11.6.
4. Storage racks in structures assigned to Seismic Design Category D, E or F in accordance with Section 1705.11.7.
5. Seismic isolation systems in accordance with Section 1705.11.8.

Exception: Special inspections itemized in Sections 1705.11.1 through 1705.11.8 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.

(p) Section 1711.1.1 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1711.1.1 General. The vertical load-bearing capacity, torsional moment capacity and deflection characteristics of joist hangers shall be determined in accordance with ASTM D 1761 and ASTM D 7147 as specified below using lumber having a specific gravity of 0.49 or greater, but not greater than 0.55, as determined in accordance with AF&PA NDS for the joist and headers.

Exception: The joist length shall not be required to exceed 24 inches (610 mm).

(q) Section , 1711.1.2 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1711.1.2 Vertical load capacity for joist hangers. The vertical load-bearing capacity for the joist hanger shall be determined by testing a minimum of three joist hanger assemblies as specified in ASTM D 1761 or ASTM D 7147. If the ultimate vertical load for any one of the tests varies more than 20 percent from the average ultimate vertical load, at least three additional tests shall be conducted. The allowable vertical load-bearing of the joist hanger shall be the lowest value determined from the following:

1. The lowest ultimate vertical load for a single hanger from any test divided by three (where three tests are conducted and each ultimate vertical load does not vary more than 20 percent from the average ultimate vertical load).
2. The average ultimate vertical load for a single hanger from all tests divided by three (where six or more tests are conducted).
3. The average from all tests of the vertical loads that produce a vertical movement of the joist with respect to the header of 1/8 inch (3.2 mm).
4. The sum of the allowable design loads for nails or other fasteners utilized to secure the joist hanger to the wood members and allowable bearing loads that contribute to the capacity of the hanger.
5. The allowable design load for the wood members forming the connection.

(r) The reference standards in Chapter 35 for ASTM in the 2013 Edition of the California Building Code is hereby amended to read as follows:

Amend the Reference Standards in Chapter 35 for ASTM as follows:

D 1761-88(2000) e1	Test Method for Mechanical Fasteners in Wood	1711.1.1 1711.1.2 1711.1.3
D 7147-05	Standard Specification for Testing and Establishing Allowable Loads of Joist Hangers	1711.1.1 1711.1.2

(s) Section 1807.1.4 of the 2013 Edition of the California Building Code is hereby 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 AWPA 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.

(t) Section 1807.1.6 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

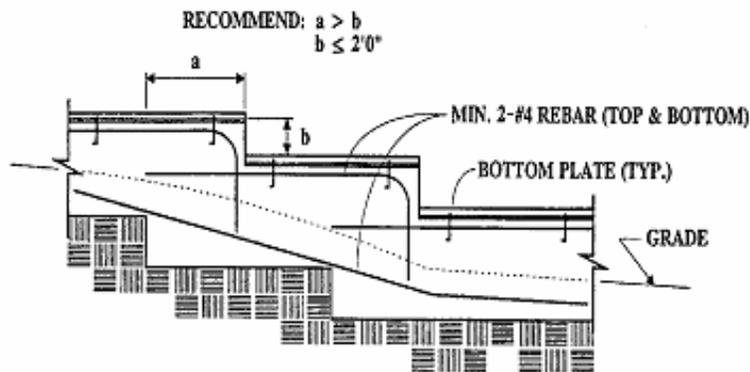
1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and

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.

(u) Section 1809.3 of the 2013 Edition of the California Building Code is hereby 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 No. 4 rebar. 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**

(v) Section 1809.7 and Table 1809.7 of the 2013 Edition of the California Building Code is hereby 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
- g. Not Adopted.

(w) Section 1809.12 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

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

(x) Section 1810.3.2.4 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

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

(y) Section 1905.1.3 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1905.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6 and 21.4.7 to read as follows:

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

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

21.4.5 – In structures assigned to Seismic Design Category D, E or F, intermediate precast wall panels and wall piers shall be designed in accordance with Section 21.9 or 21.13.

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

Exceptions:

1. Wall piers that satisfy 21.13.
2. Wall piers along a wall line within a story where other shear wall segments provide lateral support to the wall piers and such segments have a total stiffness of at least six times the sum of the stiffnesses of all the wall piers.

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

(z) Section 1905.1.8 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

1905.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

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

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

- (a) Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement 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. In 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 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

(aa) Section 1905.1 is amended and Sections 1905.1.10 thru 1905.1.12 are added to Chapter 19 of the 2013 Edition of the 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 1905.1.12.

1905.1.10 ACI 318, Section 21.6.4. Modify ACI 318, Section 21.6.4, by adding Section 21.6.4.8 and 21.6.4.9 as follows:

21.6.4.8 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 21.6.4.1, Items (a) through (c), over the full height of the member.

21.6.4.9 – At any section where the design strength, ϕP_n , of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1 and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components 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.

1905.1.11 ACI 318, Section 21.9.4. Modify ACI 318, Section 21.9.4, by adding Section 21.9.4.6 as follows:

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

1905.1.12 ACI 318, Section 21.11.6. Modify ACI 318, by adding Section 21.11.6.1 as follows:

21.11.6.1 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.

(bb) Section 2304.9.1 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

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

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

(cc) Section 2304.11.7 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

2304.11.7 Wood used in retaining walls and crib walls. Wood installed in retaining or crib walls shall be preservative treated in accordance with AWP A U1 (Commodity Specifications A or F) 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.

(dd) Section 2305.4 is added to Chapter 23 of the 2013 Edition of the California Building Code to read as follows:

2305.4 Quality of Nails. In Seismic Design Category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not 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.

(ee) Section 2305.5 is hereby added to Chapter 23 of the 2013 Edition of the 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 seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall 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-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

(ff) Section 2306.2 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

2306.2 Wood-frame diaphragms. Wood-frame diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Where panels are fastened to framing members with staples, requirements and limitations of AF&PA SDPWS shall be met and the allowable shear values set forth in Table 2306.2(1) or 2306.2(2) shall only be permitted for structures assigned to Seismic Design Category A, B, or C.

Exception: Allowable shear values where panels are fastened to framing members with staples may be used if such values are substantiated by cyclic testing and approved by the building official.

The allowable shear values in Tables 2306.2(1) and 2306.2(2) are permitted to be increased 40 percent for wind design.

Exception: [DSA-SS, DSA-SS/CC and OSHPD 1, 2 &4] Wood structural panel diaphragms using staples as fasteners are not permitted by DSA and OSHPD.

Wood structural panel diaphragms used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

Exception: Wood structural panel diaphragms are permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

(gg) Section 2306.3 is amended in Chapter 23 of the 2013 Edition of the California Building Code to read as follows:

2306.3 Wood-frame shear walls. Wood-frame shear walls shall be designed and constructed in accordance with AF&PA SDPWS. For structures assigned to Seismic Design Category D, E, or F, application of Tables 4.3A and 4.3B of AF&PA SDPWS shall include the following:

1. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.
2. The maximum nominal unit shear capacities for 3/8 inch wood structural panels resisting seismic forces in structures assigned to Seismic Design Category D, E or F is 400 pounds per linear foot (plf).
Exception: Other nominal unit shear capacities may be permitted if such values are substantiated by cyclic testing and approved by the building official.
3. Where shear design values using allow stress design (ASD) exceed 350 plf or load and resistance factor design (LRFD) exceed 500 plf, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered at all panel edges. See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.
4. Nails shall be placed not less than 1/2 inch in from the panel edges and not less than 3/8 inch from the edge of the connecting members for shear greater than 350 plf using ASD or 500 plf using LRFD. Nails shall be placed not less than 3/8 inch from panel edges and not less than 1/4 inch from the edge of the connecting members for shears of 350 plf or less using ASD or 500 plf or less using LRFD.
5. Table 4.3B application is not allowed for structures assigned to Seismic Design Category D, E, or F.

For structures assigned to Seismic Design Category D, application of Table 4.3C of AF&PA SDPWS shall not be used below the top level in a multi-level building for structures.

Where panels are fastened to framing members with staples, requirements and limitations of

AF&PA SDPWS shall be met and the allowable shear values set forth in Table 2306.3(1), 2306.3(2) or 2306.3(3) shall only be permitted for structures assigned to Seismic Design Category A, B, or C.

Exception: Allowable shear values where panels are fastened to framing members with staples may be used if such values are substantiated by cyclic testing and approved by the building official.

The allowable shear values in Tables 2306.3(1) and 2306.3(2) are permitted to be increased 40 percent for wind design. Panels complying with ANSI/APA PRP-210 shall be permitted to use design values for Plywood Siding in the AF&PA SDPWS.

Exception: [DSA-SS 7DSA-SS/CC and OSHPD 1, 2 &4] Wood structural panel shear walls using staples as fasteners are not permitted by DSA and OSHPD.

(hh) Section 2307.2 is added to Chapter 23 of the 2013 Edition of the California Building Code to read as follows:

2307.2 Wood-frame shear walls. Wood-frame shear walls shall be designed and constructed in accordance with Section 2306.3 as applicable.

(ii) Section 2308.3.4 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

Exception: For structures with a maximum plan dimension not over 50 feet (15240 mm), continuous foundations are required at exterior walls only for structures assigned to Seismic Design Category A, B, or C.

(jj) Section 2308.9.3.1, Section 2308.9.3.2 and Figure 2308.9.3.2 of the 2013 Edition of the California Building Code are hereby amended to read as follow:

2308.9.3.1 Alternative bracing. Any bracing required by Section 2308.9.3 is permitted to be replaced by the following:

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-minimum-thickness (9.5 mm) wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table 2304.9.1 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 2308.6 shall be provided in each panel. Anchor bolts shall be placed at each panel outside quarter points. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an approved uplift capacity of not less than 1,800 pounds (8006 N). The tie-down device shall be installed in accordance with the manufacturer's recommendations. The panels 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 or turned down slab edge is permitted at door openings in the braced wall line. This continuous

footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

In the first story of two-story buildings, each wall panel shall be braced in accordance with Section 2308.9.3.1, Item 1, except that 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 not be less than 3,000 pounds (13 344 N).

(kk) Section 2308.9.3.2 and Figure 2308.9.3.2 of the 2013 Edition of the California Building Code are hereby amended to read as follow:

2308.9.3.2 Alternate bracing wall panel adjacent to a door or window opening. Any bracing required by Section 2308.9.3 is permitted to be replaced by the following when used adjacent to a door or window opening with a full-length header:

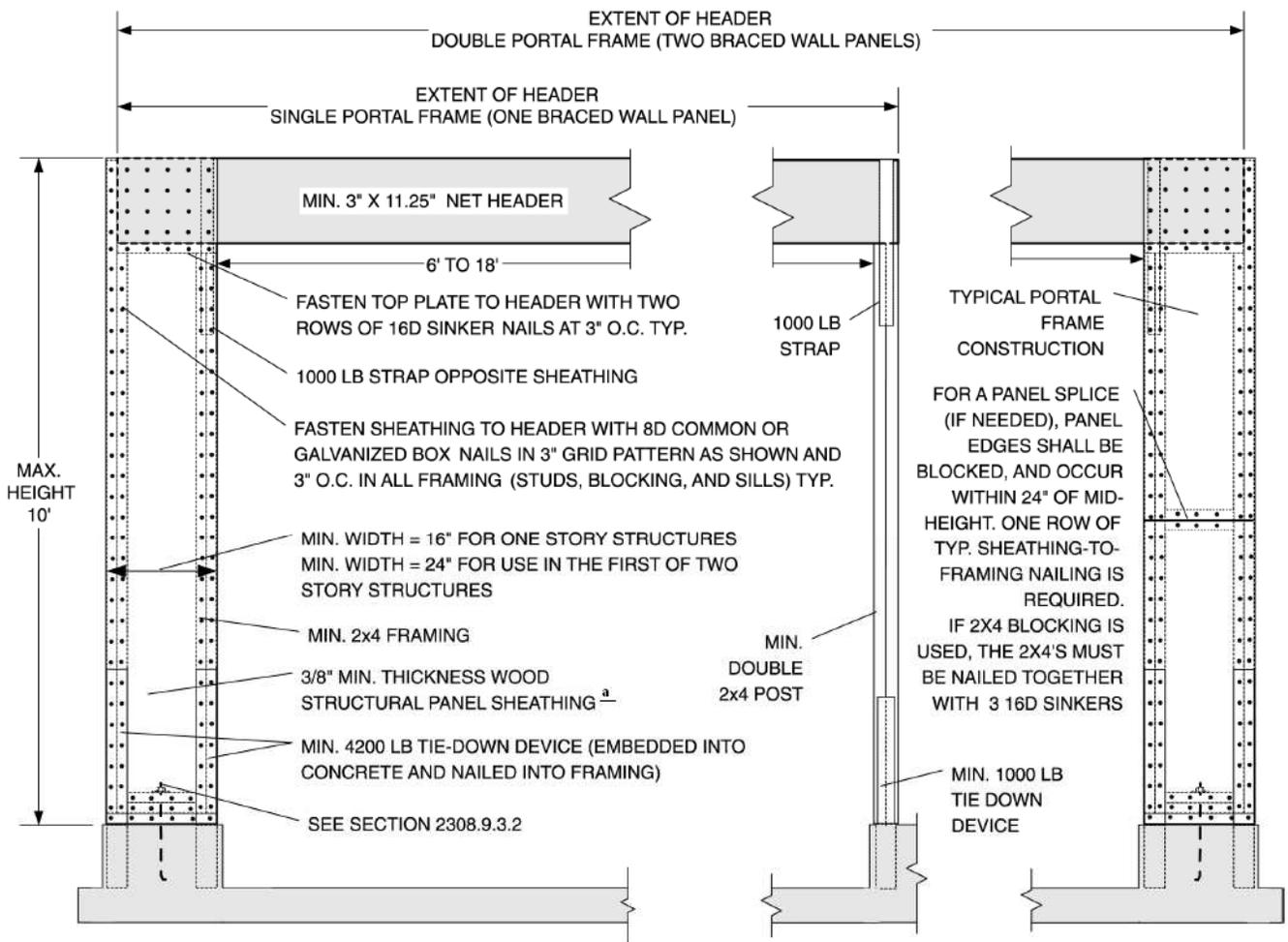
1. In one-story buildings, each panel shall have a length of not less than 16 inches (406 mm) and a height of not more than 10 feet (3048 mm). Each panel shall be sheathed on one face with a single layer of 3/8 inch (9.5 mm) minimum thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Figure 2308.9.3.2. 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 2308.9.3.2. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure 2308.9.3.2. A built-up header consisting of at least two 2 × 12s and fastened in accordance with Item 24 of Table 2304.9.1 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 2308.6 shall be provided in the center of each sill plate. The studs at each end of the panel shall have a tie-down device fastened to the foundation with an uplift capacity of not less than 4,200 pounds (18 480 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 (4400 N) shall fasten the header to the bearing studs. The bearing studs shall also have a tie-down device fastened to the foundation with an uplift capacity of not less than 1,000 pounds (4400 N).

The tie-down devices shall be an embedded strap type, installed in accordance with the manufacturer's recommendations. The 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 or turned down slab edge is permitted at door openings in the braced wall line. This continuous footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped not less than 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

2. In the first story of two-story buildings, each wall panel shall be braced in accordance with Item 1 above, except that each panel shall have a length of not less than 24 inches (610 mm).



For SI: 1 foot = 304.8 mm; 1 inch = 25.4 mm; 1 pound = 4.448 N.

a. For structures assigned to Seismic Design Category D or E, sheathed on one face with 15/32-inch-minimum-thickness (11.9 mm) wood structural panel sheathing nailed with 8d common nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

FIGURE 2308.9.3.2
ALTERNATE BRACED WALL PANEL ADJACENT TO A DOOR OR WINDOW OPENING

(II) Table 2308.12.4 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

TABLE 2308.12.4
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E
(Minimum Percentage of Wall Bracing per each Braced Wall Line^a)

CONDITI ON	SHEATHING TYPE ^b	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P ^c	43	59	75	100
	S-W ^d	21	32	37	48

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

a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the

wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required. The 2:1 h/w ratio limitation does not apply to alternate braced wall panels constructed in accordance with Section 2308.9.3.1 or 2308.9.3.2. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide [actual 1 1/2 inch (38 mm)] or larger members and spaced a maximum of 16 inches on center. Braced wall panel construction types shall not be mixed within a braced wall line.

- b. G-P = gypsum board, portland cement plaster or gypsum sheathing boards; S-W = wood structural panels.
- c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:
 - For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;
 - For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;
 - For gypsum sheathing board, 1-3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;
 - For gypsum lath, No. 13 gage (0.092 inch) by 1-1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;
 - For Portland cement plaster, No. 11 gage (0.120 inch) by 1 1/2 inches long, 7/16-inch head at 6 inches on center;
- d. S-W sheathing shall be a minimum of 15/32" thick nailed with 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

(mm) Section 2308.12.5 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

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

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

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

(nn) Section 2609 of the 2010 Edition of the California Building Code is hereby deleted.

(oo) Section 2610.9 is hereby added to Chapter 26 of the 2010 Edition of the California Building Code to read as follows:

2610.9 Approved materials. Notwithstanding the provisions in Chapter 26, no skylight shall be installed unless the materials, the construction standards, and the location have been approved by the building official, all in accordance with the provisions of this code.

1. Skylights which are flat or corrugated at the roof level shall be provided with an approved supporting barrier immediately above or below the skylight.
2. Each skylight shall not exceed a maximum area of 32 square feet.
3. The aggregate area of all skylights shall not exceed 25 percent of the floor area of the room or space sheltered by the roof in which they are installed.
4. All existing skylights which are not in conformance with this code are deemed to

be hazardous and shall be removed or protected in accordance with this section.

(pp) Section J101 of the 2013 Edition of the California Building Code is hereby amended to read as follows:

SECTION J101 GENERAL

J101.1 Scope. The provisions of this Appendix J apply to grading, excavation and earthwork construction, including fills and embankments and the control of grading site runoff, including erosion sediments and construction-related pollutants. Where conflicts occur between the technical requirements of this Appendix J and the geotechnical report, the more restrictive requirement shall govern. In addition to the provisions contained in this Appendix J, the grading shall also comply with all provisions contained in Chapter 21 of the City code.

J101.2 Flood hazard areas. The provisions of this Appendix J shall not apply to grading, excavation and earthwork construction, including fills and embankments, in floodways within flood hazard areas established in Section 1612.3 or in flood hazard areas where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

J101.3 Hazards. Whenever the building official determines that any land or any existing excavation or fill has, from any cause, become a menace to life or limb, or endangers public or private property, or adversely affects the safety, use or stability of public or private property, the owner or other person in legal control of the property concerned shall, upon receipt of a written notice thereof from the building official, correct such condition in accordance with the provisions of this Appendix J and the requirements and conditions set forth in the notice so as to eliminate such condition. The owner or other person in legal control of the property shall immediately comply with the provisions set forth in the notice and shall complete the work within 180 days from the date of the notice unless a shorter period of time for completion has been specified in the notice in which case the owner shall comply with the shorter period of time. Upon written application and good cause shown, the building official may approve the request for an extension of time to complete the work required by the notice.

J101.4 Safety precautions.

1. If at any stage of work on an excavation or fill, the building official determines that the work has become or is likely to become dangerous to any person, or is likely to endanger any property, public or private, the building official is hereby authorized to require safety precautions to be immediately taken by the property owner as a condition to continuing such permitted work or to require cessation thereof forthwith unless and until it is made safe and to amend the plans for such work.
2. Safety precautions may include, but shall not be limited to, specifying a flatter exposed slope or construction of additional drainage facilities, berms, terracing, compaction, cribbing, retaining walls or buttress fills, slough walls, desilting basins, check dams, benching, wire mesh and guniting, rock fences, revetments or diversion walls.
3. Upon the determination of the building official that such safety precautions during grading are necessary, the building official shall provide a notice and order to the permittee to implement same. After receiving such notice in writing it is unlawful for the permittee or any person to proceed with such work contrary to such order.

J101.5 Protection of utilities. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall

be jointly and severally responsible for the prevention of damage to any public utilities or services.

J101.6 Protection of adjacent property. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall be jointly responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking or other damage that might result. Special precautions approved by the building official shall be made to prevent imported or exported materials from being deposited on the adjacent public way and/or drainage courses.

J101.7 Storm water control measures. The owner and permittee of any property on which grading has been performed and that requires a grading permit under Section J103 shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris and construction-related pollutants originating from the site during, and after, grading and related construction activities. Furthermore, the owner and permittee shall be jointly and severally responsible for putting into effect and maintaining appropriate measures as deemed by the building official to be necessary to prevent any change in cross-lot surface drainage that may adversely affect any adjoining property as a result of grading, construction-related activities or both. Such measures to prevent any adverse cross-lot surface drainage effects on adjoining property shall be required whether shown on approved grading plans or not.

J101.8 Conditions of approval. In granting any permit under this code, the building official may include such conditions as he/she deems to be reasonably necessary to prevent the creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

- 1.Improvement of any existing grading to comply with the standards of this code.
- 2.Requirements for fencing of excavations or fills which would otherwise be hazardous.
- 3.Establishment of haul routes.

J101.9 Rules and regulations.

J101.9.1 Rules. The permissive provisions of this chapter shall not be presumed to waive any regulations imposed by other statutes or other ordinances of the State of California or the City.

J101.9.2 Regulations. If two or more pertinent regulations are not identical, those regulations shall prevail which are more restrictive or which afford greater safety to life, limb, health, property or welfare. For the purposes of these regulations, grading permits shall be considered as building permits and shall be subject to the administrative provisions of this code, unless otherwise specifically provided for in this Appendix J or the Vernon Municipal Code, or both.

J101.10 NPDES general. All grading plans and permits shall comply with the provisions of Chapter 21 of the City Code. Sites which have been graded and which require a grading permit under Appendix J Section J103 are subject to penalties and fines. Payment of penalty fines shall not relieve any persons from fully complying with the requirements of this code in the execution of the work. All best management

practices shall be installed before grading begins or as instructed in writing by the building official. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and control construction related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the building official unless final grading approval has been granted by the building official and all permanent drainage and erosion control systems, if required, are in place.

SECTION 20. Section 24.15 of Article III of Chapter 24, Building and Construction, of the Code of the City of Vernon, is hereby amended to read as follows:

Sec. 24.15. 2013 California Electrical Code, adopted.

(a) The City of Vernon hereby adopts by reference the 2013 California Electrical Code as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 3 including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Electrical Code is hereby referred to and by such reference is incorporated herein as if fully set forth and is hereby adopted as the Electrical Code of the City of Vernon.

(b) The City of Vernon hereby adopts by reference the 2006 International Code Council Electrical Code Administrative Provisions, as published by the International Code Council Inc., including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein or later amended, said International Code Council Electrical Code Administrative Provisions is hereby referred to and by such reference is incorporated herein as if fully set forth and is adopted by reference as part of the Electrical Code of the City of Vernon.

SECTION 21. Section 24.16 of Article III of Chapter 24, Building and Construction, of the Code of the City of Vernon, is hereby amended as follows:

Sec. 24.16. Electrical Code amendments, additions, and deletions. The 2013 Edition of the California Electrical Code is hereby amended as follows:

(a) Article 110.14(A) of the 2013 Edition of the California Electrical Code is hereby amended to add the following sentence to the end of the first paragraph:

All stranded aluminum conductors shall be terminated with an approved compression terminal.

(b) Article 200.6 of the 2013 Edition of the California Electrical Code is hereby amended to add the following sentences after the title line:

Color Coding. Grounded conductors of different voltage shall be identified by white and gray; grounded conductors of the 277/480 volt system shall be gray; grounded conductors of the lower voltage systems shall be white.

(c) Article 230.22 of the 2013 Edition of the California Electrical Code is hereby amended to read as follows:

230.22 Insulation or Covering. Individual conductors shall be insulated or covered. Service entrance conductors from overhead service drops shall be installed in rigid metal raceways.

Exception: The grounded conductor of a multiconductor cable shall be permitted to be

bare.

(d) Articles 334.10(3), (4) and (5) of the 2013 Edition of the California Electrical Code are hereby deleted.

SECTION 22. The 2006 Edition of the International Code Council Electrical Code Administrative Provisions is hereby amended as follows:

(a) Section 303.1 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby amended to read as follows:

Sec 303.1 Use and Occupancy. No building or structure shall be used or occupied until a certificate of occupancy has been provided in accordance with the California Building Codes as amended by the City of Vernon.

(b) Section 401.3(5) of the 2006 Edition of the International Code Council Electrical Code Administrative Provisions is hereby deleted.

(c) Section 402.6 is hereby added to the 2006 Edition of the International Code Council Electrical Code Administrative Provisions to read as follows:

Sec. 402.6 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of this code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any such person from the responsibility of complying with the provisions or intent of this code.

(d) Section 402.7 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby added to read as follows:

Sec 402.7 Utility Notification. An applicant for an electrical installation that will require an increase in the amount of power supply to the electrical service by more than 50 amps shall notify the Vernon Light and Power Department of the additional new load.

(e) Section 402.8 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby added to read as follows:

Sec 402.8 Energizing Electrical Equipment. No person shall energize or use any electrical equipment until it has been inspected and approved by the City.

(f) Section 404.2 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby amended to read as follows:

Sec. 404.2 Electrical permit fees. Electrical permit fees shall be set forth in a fee schedule adopted by resolution of the City Council. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made. Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official. In instances where reinspection fees have been assessed, the

city may deny additional inspection of the work until the required fees are paid.

(g) Section 1102 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby deleted.

(h) Section 1201.3 of the 2006 Edition of the International Code Council Electrical Code Administrative provisions is hereby amended to read as follows:

Sec 1201.3 Appliance and fixture listing. All electrical equipment installed or used shall be listed and labeled by a City approved recognized testing agency. All equipment shall be installed in conformance with all instructions included as part of the listing.

SECTION 23. Section 24.20 of Article IV of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.20. 2013 California Mechanical Code adopted. The City of Vernon hereby adopts by reference the 2013 California Mechanical Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 4, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Mechanical Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 24. Section 24.21 of Article IV of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.21. Mechanical Code amendments, additions, and deletions.

(a) Section 114.6 is hereby added to Chapter 1 of the 2013 Edition of the California Mechanical Code to read as follows:

114.7 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Table 114.1 of the 2013 Edition of the California Mechanical Code is hereby amended to read as follows:

**Table 114.1
MECHANICAL PERMIT FEES:**

Mechanical permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

SECTION 25. Section 24.25 of Article V of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.25. 2013 California Plumbing Code adopted. The City of Vernon hereby adopts by reference the 2013 California Plumbing Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 5, including all of its tables, indices, appendices, addenda and footnotes. Except as otherwise provided herein, or as later amended,

said California Plumbing Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 26. Section 24.26 of Article V of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.26. Plumbing Code amendments, additions, and deletions. The 2013 California Plumbing Code is amended as follows:

(a) Section 103.9 is hereby added to Chapter 1 of the 2013 Edition of the California Plumbing Code to read as follows:

103.9 Responsibility of Permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Table 103.4 of the 2013 Edition of the California Plumbing Code is hereby amended to read as follows:

**Table 103.4.
PLUMBING PERMIT FEES:**

Plumbing permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

(c) Table 422.1 of the 2013 Edition of the California Plumbing Code is hereby amended to add the following sentence after the third paragraph:

If the actual number of expected occupants at the facility exceed the number occupants provided in Table 4-1, the number of plumbing facilities shall be determined based on the actual occupant load. Except that the number of lavatories for a garment manufacturing facility shall be one lavatory for every 15 employees of each sex.

(d) Section 1101.1 of the 2013 Edition of the California Plumbing Code is hereby amended to read as follows:

1101.1 Where Required. Yard drainage piping and onsite storm drain systems that connects to a public storm drainage systems shall be installed in accordance with this chapter, approved public works standards and the provisions of Chapter 21 of the City Code. Prior to construction of any storm drain system, complete plans and hydraulic calculations shall be approved by the agency whose storm drainage system is to be impacted by the proposed system. Storm water shall flow away from buildings and adjoining properties.

SECTION 27. Section 24.27 of Article V of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby deleted.

SECTION 28. Section 24.28 of Article V of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby deleted.

SECTION 29. Section 24.60 of Article IX of Chapter 24, Building and Construction, of the Code of the City of Vernon, is hereby amended as follows:

Sec. 24.60. 2013 California Existing Building Code adopted. The City of Vernon hereby adopts by reference Appendix Chapter A1 of the 2013 California Existing Building Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 10, including the tables, indices, appendices, addenda and footnotes contained therein as the seismic strengthening provisions for unreinforced masonry bearing wall buildings for the City of Vernon. Except as otherwise provided herein, or as later amended, said California Existing Building Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 30. Section 24.64 of Article IX of Chapter 24, Building and Construction, of the Code of the City of Vernon, is hereby amended as follows:

Sec. 24.64. Chapter A2 and A5 of the 2012 International Existing Building Code adopted. Chapter A2 of the 2012 International Existing Building Code, published by the International Code Council, Inc., is hereby adopted as the minimum standard for seismic strengthening of tilt-up concrete wall buildings, and Chapter A5 of the 2012 International Existing Building Code, published by the International Code Council, is hereby adopted as the minimum standard for seismic strengthening of concrete buildings. These standards are established as a minimum guideline for those property owners voluntarily selecting to retrofit their structures and shall not be construed as the City of Vernon mandated program. Except as otherwise provided herein, or as later amended, said 2012 International Existing Building Code[®] is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 31. Section 24.76 of Article XI of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended as follows:

Sec. 24.76. The 2012 Edition of the International Existing Building Code adopted, repair criteria. The 2012 Edition of the International Existing Building Code, published by the International Code Council, Inc., subject however, to the amendments, additions and deletions set forth in this article, is hereby adopted by reference as the Repair Criteria of the City of Vernon relating to disaster repair and reconstruction.

SECTION 32. Section 24.77 of Article XI of Chapter 24, Building and Construction, of the Code of the City of Vernon is hereby amended to read as follows:

Sec. 24.77. International Existing Building Code amendments, additions and deletions. The 2012 International Existing Building Code is amended as follows:

- (a) International Existing Building Code Section 202 is hereby amended to add the following definitions in alphabetical order:
- International Building Code – shall mean the California Building Code as amended by the City of Vernon.
 - Uncontrollable Event – shall mean an act of god including a seismic event, flood, fire, tsunami or other natural disaster beyond the control of the property owner.

- (b) International Existing Building Code Appendix A Chapter A1 is hereby amended to read as follows:

Appendix A Chapter A1
Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings.

Section A 101 General – All damaged unreinforced masonry buildings and structures shall be repaired and strengthened in accordance with the California Existing Building Code adopted in Section 24.60.

SECTION 33. Section 24.104 of Article XIII of Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.104. 2013 California Residential Code adopted. The City of Vernon hereby adopts by reference the 2013 California Residential Code and Appendix G thereof, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 2.5, including all tables, indices, addenda and footnotes. Except as otherwise provided herein, or as later amended, said California Residential Code is hereby referred to and by such reference is incorporated herein as if fully set forth.

SECTION 34. Section 24.105 of Article XIII of Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.105. Residential Code amendments, additions, and deletions. The 2013 Residential Code is amended as follows:

(a) Section R105.8 of the 2010 Edition of the California Residential Code is hereby amended to read as follows:

R105.8 Responsibility of permittee. Building permits shall be presumed to incorporate the provision, that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all the requirements of the code and any other law or regulations applicable thereto, whether specified or not. No approval shall exonerate any person from the responsibility of complying with the provisions or intent of the code.

(b) Section R108.7 is hereby added to Chapter 1 of the 2010 Edition of the California Residential Code to read as follows:

R108.7 Reinspection. A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(c) Section R301.1.3.2 of the 2013 Edition of the California Residential Code is hereby 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 of 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 or with a basement located in Seismic Design Category D₀, D₁, D₂ or E.

(d) Section R301.1.4 is hereby added to Chapter 3 of the 2013 Edition of the 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 Building Code.

(e) Table R301.2.2.1.1 and section 301.2.2.1.2 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

**TABLE R301.2.2.1.1
SEISMIC DESIGN CATEGORY DETERMINATION**

CALCULATED S _{DS}	SEISMIC DESIGN CATEGORY
$S_{DS} \leq 0.17g$	A
$0.17g < S_{DS} \leq 0.33g$	B
$0.33g < S_{DS} \leq 0.50g$	C
$0.50g < S_{DS} \leq 0.67g$	D ₀
$0.67g < S_{DS} \leq 0.83g$	D ₁
$0.83g < S_{DS} \leq 1.00g$	D ₂
$1.00g < S_{DS}$	E

R301.2.2.1.2 Alternative determination of Seismic Design Category E. Buildings located in Seismic Design Category E in accordance with Figure R301.2(2) are permitted to be reclassified as being in Seismic Design Category D₂ provided one of the following is done:

1. A more detailed evaluation of the seismic design category is made in accordance with the provisions and maps of the California Building Code. Buildings located in Seismic Design Category E per Table R301.2.2.1.1, but located in Seismic Design Category D per the California Building Code, may be designed using the Seismic Design Category D₂ requirements of this code.
2. Buildings located in Seismic Design Category E that conform to the following additional restrictions are permitted to be constructed in accordance with the provisions for Seismic Design Category D₂ of this code:
 - 2.1. All exterior shear wall lines or braced wall panels are in one plane vertically from the foundation to the uppermost story.
 - 2.2. Floors shall not cantilever past the exterior walls.
 - 2.3. The building is within all of the requirements of Section R301.2.2.2.5 for being considered as regular.
 - 2.4. For buildings over one story in height, the calculated S_{DS} shall not exceed 1.25g.

(f) Items 1, 3 and 5 of Section R301.2.2.2.5 of the 2013 Edition of the California Residential Code are amended to read as follows:

1. When exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.

3. When the end of a braced wall panel occurs over an opening in the wall below.
5. When portions of a floor level are vertically offset.

(g) Section R301.2.2.3.8 is added to Chapter 3 of the 2010 Edition of the 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 International 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.

(h) Section R401.1 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

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

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

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

Wood foundations in Seismic Design Category D₀, D₁ or D₂ shall not be permitted.

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

(i) Section R403.1.2 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

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

(j) Section R403.1.3 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

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

In Seismic Design Categories D_0 , D_1 and D_2 where construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D_0 , D_1 and D_2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

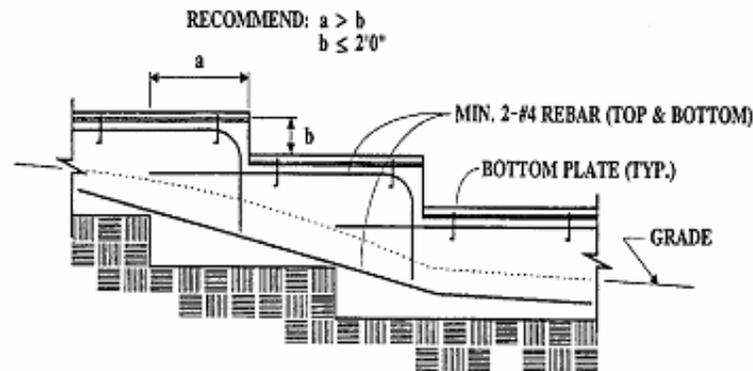
In Seismic Design Categories D_0 , D_1 and D_2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family dwellings located in Seismic Design Category A, B or C which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings, supporting columns or pedestals are permitted.

(k) Section R403.1.5 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

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

For structures located in Seismic Design Categories D_0 , D_1 or D_2 , 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**

(l) Section R404.2 of the 2013 Edition of the California Residential Code is amended to read as follows:

R404.2 Wood foundation walls. Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures R403.1(2) and R403.1(3). Wood foundation walls shall not be used for structures located in Seismic

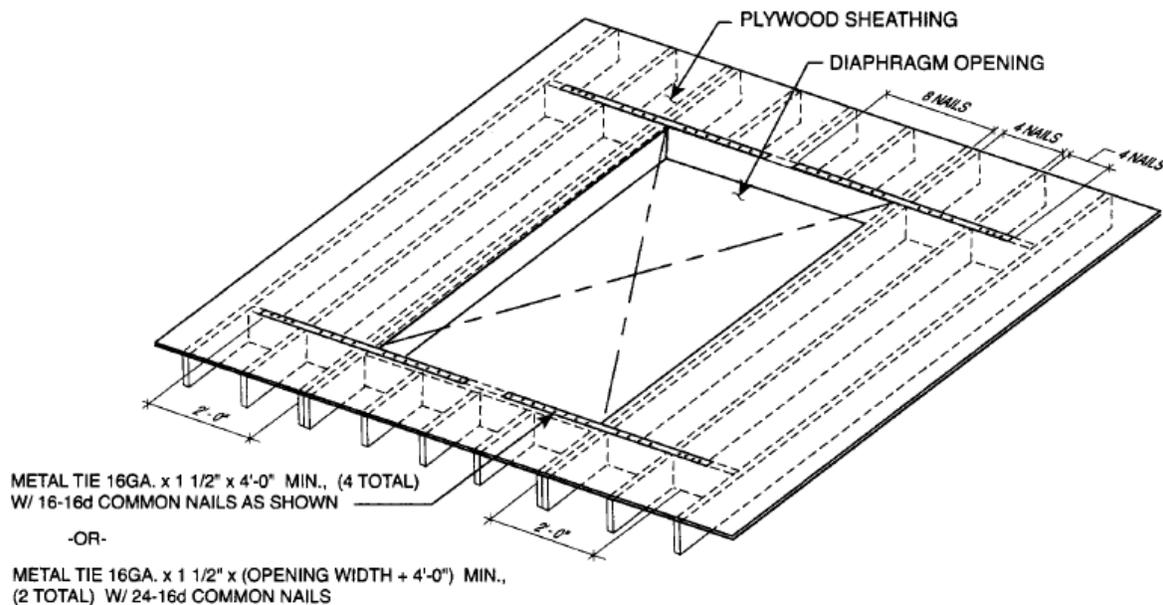
Design Category D₀, D₁ or D₂.

(m) Section R501.1 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R501.1 Application. The provisions of this chapter shall control the design and construction of the floors for all 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.

(n) Section R4503.2.4 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R503.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2 m) shall be constructed in accordance with Figure R503.2.4.



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

- a. Blockings shall be provided beyond headers.
- b. Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).
- c. Openings in diaphragms shall be further limited in accordance with Section R301.2.2.2.5.

**FIGURE R503.2.4
OPENINGS IN HORIZONTAL DIAPHRAGMS**

(o) Lines 37 and 38 of Table R602.3(1) of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

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

ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER ^{b, c, e}	SPACING OF FASTENERS	
			Edges (inches) ^l	Intermediate supports ^{c, e} (inches)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
32	$\frac{3}{8}$ " - $\frac{1}{2}$ "	6d common (2" × 0.113") nail (subfloor wall) ^j 8d common (2½" × 0.131") nail (roof) ^f	6	12 ^g
33	$\frac{19}{32}$ " - 1"	8d common nail (2½" × 0.131")	6	12 ^g
34	1½" - 1¾"	10d common (3" × 0.148") nail or 8d (2½" × 0.131") deformed nail	6	12
Other wall sheathing^a				
35	½" structural cellulosic fiberboard sheathing	1½" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1¼" long	3	6
36	$\frac{25}{32}$ " structural cellulosic fiberboard sheathing	1¾" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1½" long	3	6
37 ^k	½" gypsum sheathing ^d	1½" galvanized roofing nail; staple galvanized, 1½" long; 1¼" screws, Type W or S	7	7
38 ^k	$\frac{5}{8}$ " gypsum sheathing ^d	1¾" galvanized roofing nail; staple galvanized, 1½" long; 1½" screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
39	$\frac{3}{4}$ " and less	6d deformed (2" × 0.120") nail or 8d common (2½" × 0.131") nail	6	12
40	$\frac{7}{8}$ " - 1"	8d common (2½" × 0.131") nail or 8d deformed (2½" × 0.120") nail	6	12
41	1½" - 1¾"	10d common (3" × 0.148") nail or 8d deformed (2½" × 0.120") nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s; 1 Ksi = 6.895 MPa.

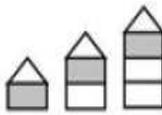
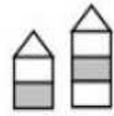
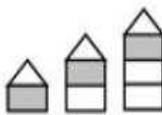
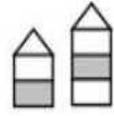
- a. All nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
 - b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.
 - c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
 - d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
 - e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
 - f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2½" × 0.120) nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum.
 - g. For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.
 - h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.
 - i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
 - j. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.
- K. Use of staples in braced wall panels shall be prohibited in Seismic Design Category D0, D1, or D2.

(p) Footnote "b" of Table R602.3(2) of the 2013 Edition of the California Residential Code is amended to read as follows:

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

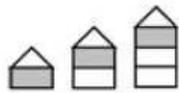
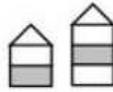
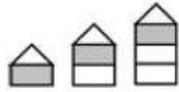
(q) Table R602.10.3(3) of the 2013 Edition of the California Residential Code are hereby amended to read as follows:

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

<ul style="list-style-type: none"> • SOIL CLASS D^b • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^c	Method GB ^e	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{d,ε}	Method WSP	Methods CS-WSP, CS-G
C (townhouses only)		10	2.5	2.5	2.5	1.6	1.4
		20	5.0	5.0	5.0	3.2	2.7
		30	7.5	7.5	7.5	4.8	4.1
		40	10.0	10.0	10.0	6.4	5.4
		50	12.5	12.5	12.5	8.0	6.8
		10	NP	4.5	4.5	3.0	2.6
		20	NP	9.0	9.0	6.0	5.1
		30	NP	13.5	13.5	9.0	7.7
		40	NP	18.0	18.0	12.0	10.2
		50	NP	22.5	22.5	15.0	12.8
		10	NP	6.0	6.0	4.5	3.8
		20	NP	12.0	12.0	9.0	7.7
		30	NP	18.0	18.0	13.5	11.5
		40	NP	24.0	24.0	18.0	15.3
		50	NP	30.0	30.0	22.5	19.1
D ₀		10	NP	2.8 <u>5.6</u>	2.8 <u>5.6</u>	1.8	1.6
		20	NP	5.5 <u>11.0</u>	5.5 <u>11.0</u>	3.6	3.1
		30	NP	8.3 <u>16.6</u>	8.3 <u>16.6</u>	5.4	4.6
		40	NP	11.0 <u>22.0</u>	11.0 <u>22.0</u>	7.2	6.1
		50	NP	13.8 <u>27.6</u>	13.8 <u>27.6</u>	9.0	7.7
		10	NP	5.3 <u>NP</u>	5.3 <u>NP</u>	3.8	3.2
		20	NP	10.5 <u>NP</u>	10.5 <u>NP</u>	7.5	6.4
		30	NP	15.8 <u>NP</u>	15.8 <u>NP</u>	11.3	9.6
		40	NP	21.0 <u>NP</u>	21.0 <u>NP</u>	15.0	12.8
		50	NP	26.3 <u>NP</u>	26.3 <u>NP</u>	18.8	16.0
		10	NP	7.3 <u>NP</u>	7.3 <u>NP</u>	5.3	4.5
		20	NP	14.5 <u>NP</u>	14.5 <u>NP</u>	10.5	9.0
		30	NP	21.8 <u>NP</u>	21.8 <u>NP</u>	15.8	13.4
		40	NP	29.0 <u>NP</u>	29.0 <u>NP</u>	21.0	17.9
		50	NP	36.3 <u>NP</u>	36.3 <u>NP</u>	26.3	22.3

(continued)

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

<ul style="list-style-type: none"> • SOIL CLASS D^b • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET 			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^c					
Seismic Design Category	Story Location	Braced Wall Line Length (feet)	Method LIB ^d	Method GB ^e	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB ^{d,e}	Method WSP	Methods CS-WSP, CS-G	
D ₁		10	NP	3.0 8.0	3.0 8.0	2.0	1.7	
		20	NP	6.0 12.0	6.0 12.0	4.0	3.4	
		30	NP	9.0 18.0	9.0 18.0	6.0	5.1	
		40	NP	12.0 24.0	12.0 24.0	8.0	6.8	
		50	NP	15.0 30.0	15.0 30.0	10.0	8.5	
		10	NP	6.0 NP	6.0 NP	4.5	3.8	
		20	NP	12.0 NP	12.0 NP	9.0	7.7	
		30	NP	18.0 NP	18.0 NP	13.5	11.5	
		40	NP	24.0 NP	24.0 NP	18.0	15.3	
		50	NP	30.0 NP	30.0 NP	22.5	19.1	
		10	NP	8.5 NP	8.5 NP	6.0	5.1	
		20	NP	17.0 NP	17.0 NP	12.0	10.2	
		30	NP	25.5 NP	25.5 NP	18.0	15.3	
		40	NP	34.0 NP	34.0 NP	24.0	20.4	
		50	NP	42.5 NP	42.5 NP	30.0	25.5	
D ₂		10	NP	4.0 8.0	4.0 8.0	2.5	2.1	
		20	NP	8.0 16.0	8.0 16.0	5.0	4.3	
		30	NP	12.0 24.0	12.0 24.0	7.5	6.4	
		40	NP	16.0 32.0	16.0 32.0	10.0	8.5	
		50	NP	20.0 40.0	20.0 40.0	12.5	10.6	
		10	NP	7.5 NP	7.5 NP	5.5	4.7	
		20	NP	15.0 NP	15.0 NP	11.0	9.4	
		30	NP	22.5 NP	22.5 NP	16.5	14.0	
		40	NP	30.0 NP	30.0 NP	22.0	18.7	
		50	NP	37.5 NP	37.5 NP	27.5	23.4	
		10	NP	NP	NP	NP	NP	NP
		20	NP	NP	NP	NP	NP	NP
		30	NP	NP	NP	NP	NP	NP
		40	NP	NP	NP	NP	NP	NP
		50	NP	NP	NP	NP	NP	NP
Cripple wall below one- or two-story dwelling	10	NP	NP	NP	NP	7.5	6.4	
	20	NP	NP	NP	NP	15.0	12.8	
	30	NP	NP	NP	NP	22.5	19.1	
	40	NP	NP	NP	NP	30.0	25.5	
	50	NP	NP	NP	NP	37.5	31.9	

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

a. Linear interpolation shall be permitted.

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

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

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

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

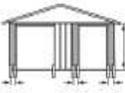
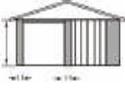
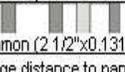
(r) Table R602.10.4 of the 2013 Edition of the California Residential Code is amended to read as follows:

**TABLE R602.10.4
BRACING METHODS ^f**

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a		
			Fasteners	Spacing	
Intermittent Bracing Method	LIB Let-in-bracing	1 × 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2" long x 0.113" dia.) nails Metal strap: per manufacturer	Wood: per stud and top and bottom plates Metal: per manufacturer
	DWB Diagonal wood boards	3/4" (1" nominal) for maximum 24" stud spacing		2-8d (2 1/2" long x 0.113" dia.) nails or 2 - 1 3/4" long staples	Per stud
	WSP Wood structural panel (See Section R604)	3/8" or 15/32"		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6" edges 12" field Varies by fastener 6" edges 12" field
	BV-WSP^b Wood Structural Panels with Stone or Masonry Veneer (See Section R602.10.6.5)	7/16"	See Figure R602.10.6.5	8d common (2 1/2" x 0.131) nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts
	SFB Structural fiberboard sheathing	1/2" or 25/32" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 3/4" long x 0.12" dia. (for 25/32" thick sheathing) galvanized roofing nails or 8d common (2 1/2" long x 0.131" dia.) nails	3" edges 6" field
	GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) for exterior locations Nails or screws per Table R702.3.5 for interior locations	For all braced wall panel locations: 7" edges (including top and bottom plates) 7" field
	PBS Particleboard sheathing (See Section R605)	3/8" or 1/2" for maximum 16" stud spacing		For 3/8", 6d common (2" long x 0.113" dia.) nails For 1/2", 8d common (2 1/2" long x 0.131" dia.) nails	3" edges 6" field
	PCP Portland cement plaster	See Section R703.6 for maximum 16" stud spacing		1 1/2" long, 11 gage, 7/16" dia. head nails or 7/8" long, 16 gage staples ^a	6" o.c. on all framing members
	HPS Hardboard panel siding	7/16" for maximum 16" stud spacing		0.092" dia., 0.225" dia. head nails with length to accommodate 1 1/2" penetration into studs	4" edges 8" field
	ABW Alternate braced wall	3/8"		See Section R602.10.6.1	See Section R602.10.6.1

(continued)

TABLE R602.10.4—continued
BRACING METHODS^f

METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^g	
				Fasteners	Spacing
Intermittent Bracing Methods	PFH Portal frame with hold-downs	$\frac{3}{8}$ "		See Section R602.10.6.2	See Section R602.10.6.2
	PFG Portal frame at garage	$\frac{7}{16}$ "		See Section R602.10.6.3	See Section R602.10.6.3
Continuous Sheathing Methods	CS-WSP Continuously sheathed wood structural panel	$\frac{3}{8}$ " $\frac{15}{32}$ "	 8d common (2 1/2"x0.131") nails 3/8" edge distance to panel edge 8d common (2 1/2"x0.131") nails 3/8" edge distance to panel edge	Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6" edges 12" field Varies by fastener 6" edges 12" field
	CS-G^c Continuously sheathed wood structural panel adjacent to garage openings	$\frac{3}{8}$ " $\frac{15}{32}$ "		See Method CS-WSP	See Method CS-WSP
	CS-PF Continuously sheathed portal frame	$\frac{7}{16}$ " $\frac{15}{32}$ "		See Section R602.10.6.4	See Section R602.10.6.4
	CS-SFB^d Continuously sheathed structural fiberboard	$\frac{1}{2}$ " or $\frac{25}{32}$ " for maximum 16" stud spacing		$1\frac{1}{2}$ " long \times 0.12" dia. (for $\frac{1}{2}$ " thick sheathing) $1\frac{3}{4}$ " long \times 0.12" dia. (for $\frac{25}{32}$ " thick sheathing) galvanized roofing nails or 8d common (2 1/2" long \times 0.131" dia.) nails	3" edges 6" field

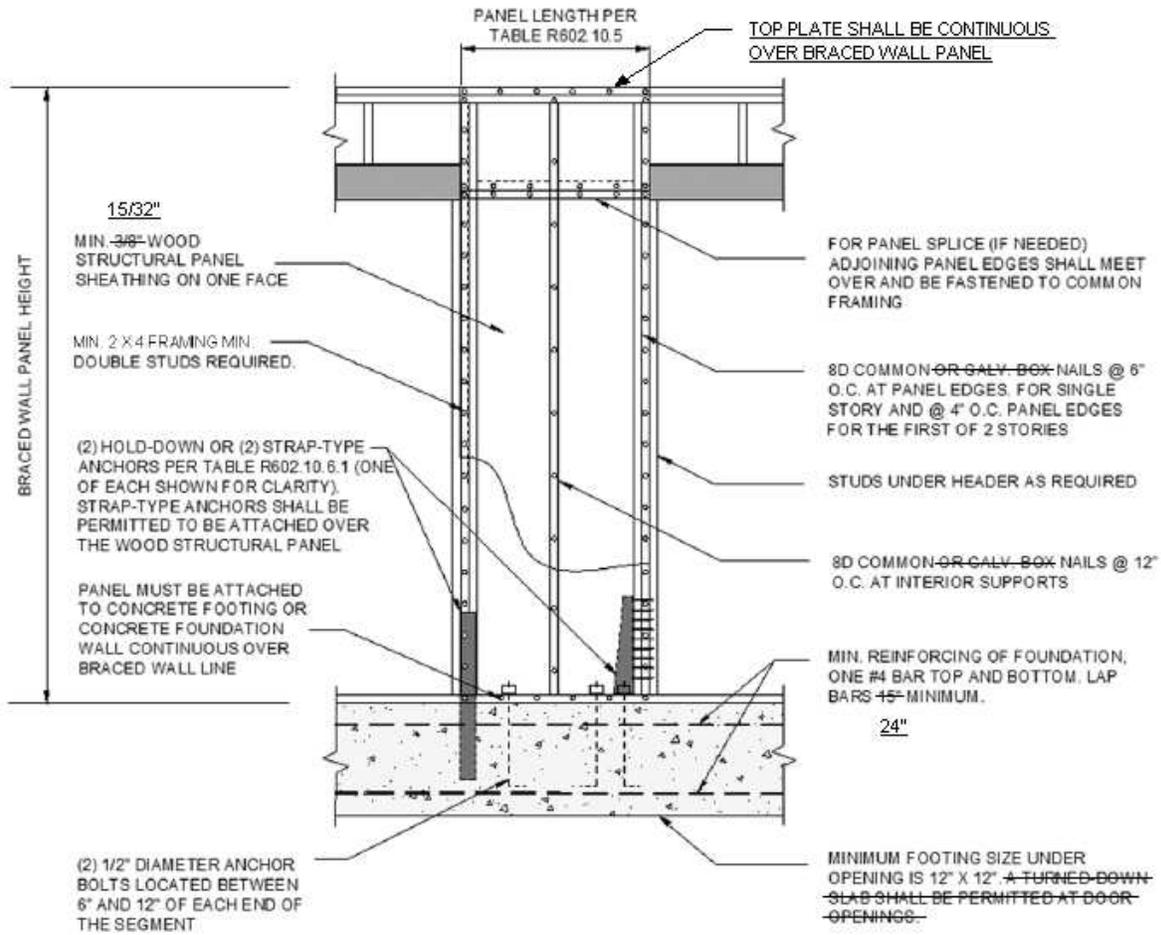
For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.8 N/m², 1 mile per hour = 0.447 m/s.

- a. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D₀, D₁ and D₂.
- b. Applies to panels next to garage door opening when supporting gable end wall or roof load only. May only be used on one wall of the garage. In Seismic Design Categories D₀, D₁ and D₂ roof covering dead load may not exceed 3 psf.
- c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R502.5(1). A full height clear opening shall not be permitted adjacent to a Method CS-G panel.
- d. Method CS-SFB does not apply in Seismic Design Categories D₀, D₁ and D₂ and in areas where the wind speed exceeds 100 mph.
- e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₀ through D₂ only.

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

^g. Use of staples in braced wall panels shall be prohibited in SDC D₀, D₁, or D₂.

(s) Figure R602.10.6.1 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:



**FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL**

(t) Figure R602.10.6.2 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

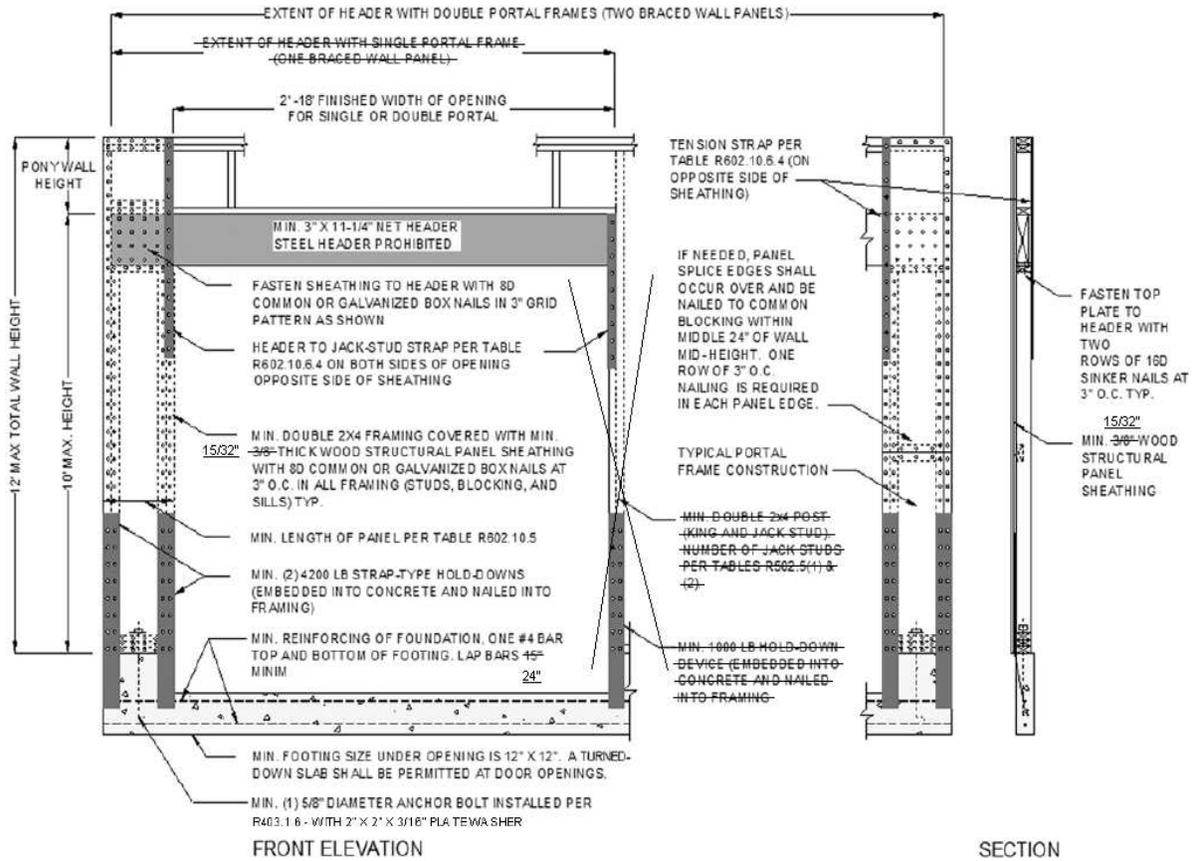


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS
AT DETACHED GARAGE DOOR OPENINGS

(u) Table R602.10.5 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

**TABLE R602.10.5
MINIMUM LENGTH OF BRACED WALL PANELS**

METHOD (See Table R602.10.4)		MINIMUM LENGTH ^a (inches)					CONTRIBUTING LENGTH (inches)
		Wall Height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP		48	48	48	53	58	Actual ^b
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual
LIB		55	62	69	NP	NP	Actual ^b
ABW	SDC A, B and C, wind speed < 110 mph	28	32	34	38	42	48
	SDC D ₀ , D ₁ and D ₂ , wind speed < 110 mph	32	32	34	NP	NP	
PFH	Supporting roof only	16-24	16-24	16-24	18-24^f	20-24^f	48
	Supporting one story and roof	24	24	24	27 ^c	29 ^c	48
PFG		24	27	30	33 ^d	36 ^d	1.5 × Actual ^b
CS-G		24	27	30	33	36	Actual ^b
CS-PF		16-24	18-24	20-24	22-24^f	24 ^e	Actual ^b
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						Actual ^b
	≤ 64	24	27	30	33	36	
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	36	36	
	100	—	44	40	38	38	
	104	—	49	43	40	39	
	108	—	54	46	43	41	
	112	—	—	50	45	43	
	116	—	—	55	48	45	
	120	—	—	60	52	48	
	124	—	—	—	56	51	
	128	—	—	—	61	54	
132	—	—	—	66	58		
136	—	—	—	—	62		
140	—	—	—	—	66		
144	—	—	—	—	72		

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.

NP = Not Permitted.

a. Linear interpolation shall be permitted.

b. Use the actual length when it is greater than or equal to the minimum length.

c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height may be increased to 12 feet with pony wall.

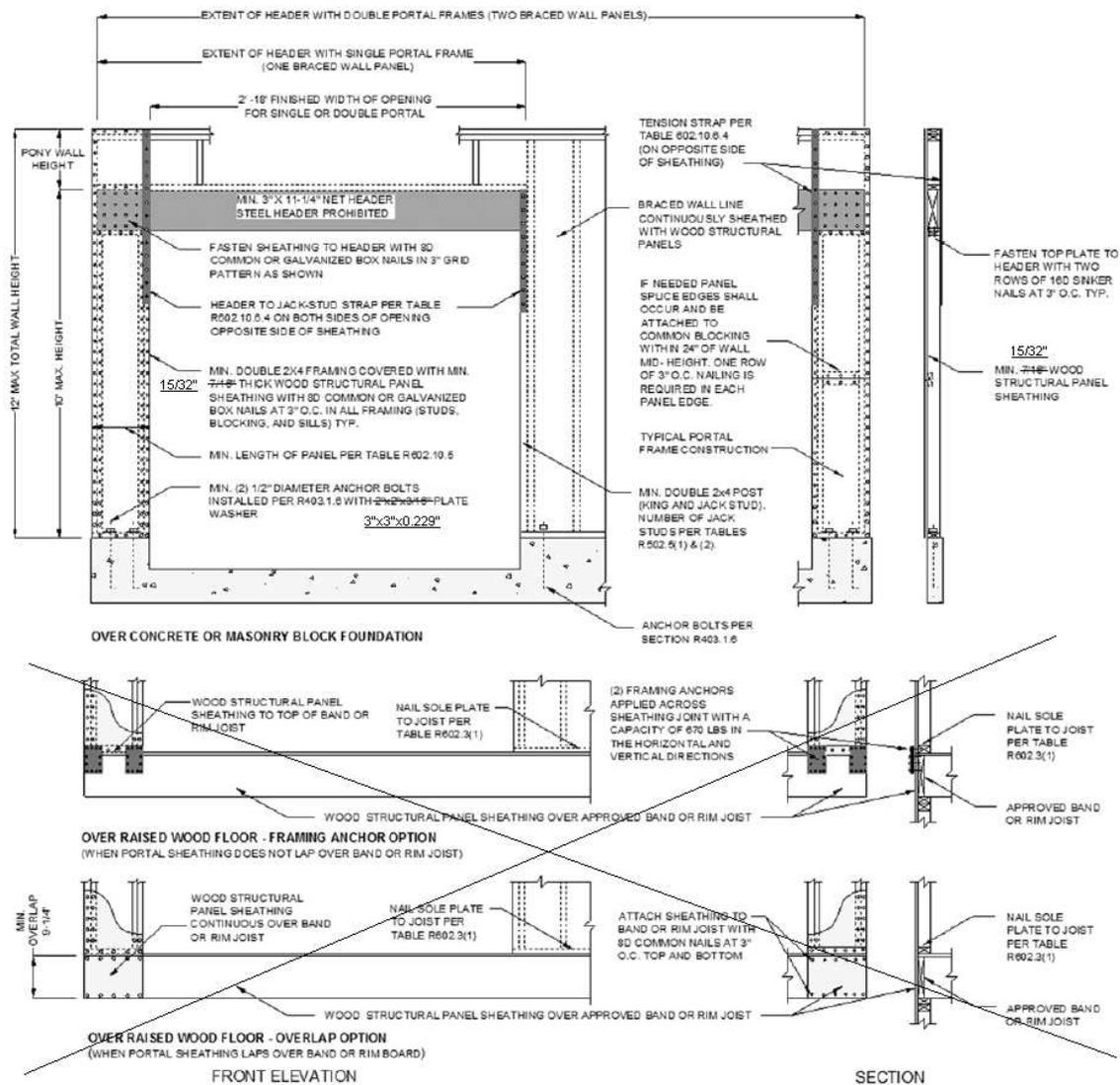
d. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall.

e. Maximum opening height for CS-PF is 10 feet in accordance with Figure R602.10.6.4, but wall height may be increased to 12 feet with pony wall.

(v) Section R602.10.2.3 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R602.10.2.3 Minimum number of braced wall panels. Braced wall lines with a length of 16 feet (4877 mm) or less shall have a minimum of two braced wall panels of any length or one braced wall panel equal to 48 inches (1219 mm) or more. Braced wall lines greater than 16 feet (4877 mm) shall have a minimum of two braced wall panels. No braced wall panel shall be less than 48 inches in length in Seismic Design Category D₀, D₁, or D₂.

(w) Figure 602.10.6.4 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:



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

FIGURE R602.10.6.4
METHOD CS-PF-CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

(x) Section R602.10.9.1 of the 2013 Edition of the California Residential Code is hereby deleted in its entirety.

(y) Section R606.2.4 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R606.2.4 Parapet walls. Unreinforced solid masonry parapet walls shall not be less than 8 inches (203 mm) thick and their height shall not exceed four times their thickness. Unreinforced hollow unit masonry parapet walls shall be not less than 8 inches (203 mm) thick, and their height shall not exceed three times their thickness. Masonry parapet walls in areas subject to wind loads of 30 pounds per square foot (1.44 kPa) or located in Seismic Design Category D₀, D₁ or D₂, or on townhouses in Seismic Design Category C shall be reinforced in accordance with Section R606.12.

(z) Section 606.12.2.2.3 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R606.12.2.2.3 Reinforcement requirements for masonry elements. Masonry elements listed in Section R606.12.2.2.2 shall be reinforced in either the horizontal or vertical direction as shown in Figure R606.11(3) and in accordance with the following:

1. Horizontal reinforcement. Horizontal joint reinforcement shall consist of at least one No. 4 bar spaced not more than 48 inches (1219 mm). Horizontal reinforcement shall be provided within 16 inches (406 mm) of the top and bottom of these masonry elements.
2. Vertical reinforcement. Vertical reinforcement shall consist of at least one No. 4 bar spaced not more than 48 inches (1219 mm). Vertical reinforcement shall be within ~~46~~8 inches (406mm) of the ends of masonry walls.

(aa) Exception to Section R602.3.2 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

Exception: In other than Seismic Design Category D₀, D₁ or D₂, a single top plate may be installed in stud walls, provided the plate is adequately tied at joints, corners and intersecting walls by a minimum 3-inch-by-6-inch by a 0.036-inch-thick (76 mm by 152 mm by 0.914 mm) galvanized steel plate that is nailed to each wall or segment of wall by six 8d nails on each side, provided the rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm). The top plate may be omitted over lintels that are adequately tied to adjacent wall sections with steel plates or equivalent as previously described.

(bb) Section R803.2.4 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R803.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms shall conform with Section R503.2.4.

(cc) Section R1001.3.1 of the 2013 Edition of the California Residential Code is hereby amended to read as follows:

R1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars adequately anchored into the concrete foundation shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

SECTION 35. Section 24.106 of Article XIV, Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.106. 2013 California Green Building Standards Code adopted. The City of Vernon hereby adopts by reference the 2013 California Green Building Standards Code, also known as CALGreen Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 11, including applicable tables, indices, appendices, addenda and footnotes. The voluntary provisions in Appendix Chapter A-4 and Chapter A-5 are not adopted as mandatory compliance features at this time. Except as otherwise provided herein, or as later amended, said California Green Building Standards Code is hereby referred to and by such reference is incorporated herein as if fully set forth and is hereby adopted by reference as the Green Building Standards Code of the City of Vernon.

SECTION 36. Section 24.107 of Article XIV, Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.107. Green Building Standards Code amendments, additions, and deletions. The 2013 Edition of the California Green Building Standards Code is hereby amended as follows:

(a) Section 101.12 is hereby added to the 2010 California Green Building Standards Code to read as follows:

Section 101.12 Green building standards permit fee. Green Building Standards permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

(b) The definition of “sustainability” is hereby added to Section 202 of the 2013 Edition of the California Green Building Standards Code in alphabetical order to read as follows:

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

(c) Section 301.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

301.1 Scope. Buildings shall be designed to include the green building measures specified as mandatory in this code. Voluntary green building measures are also included in this code and the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless they are adopted by a city or county as specified in Section 101.7.

(d) Section 301.1.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

Section 301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings. 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.

(e) Section 5.408.3 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

5.408.3 Excavated soil and land clearing debris [BSC] 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on-or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material. (www.cdfa.ca.gov/exec/county/county_contacts.html)
2. For a map of known pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)
3. Contaminated soil shall not be reused and shall be disposed of or remediated in accordance with relevant regulations.

(f) Section 601.1 is added to the 2013 Edition of the California Green Building Standards Code to read as follows:

601.1. This section lists the organization and standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard.

(g) Section A4.105.2 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.105.2 Reuse of materials. Use salvaged, refurbished or reused materials for a minimum of 2.5 percent of the total value, based on estimated cost of materials on the project. Materials which can be easily reused include but are not limited to the following:

1. Light fixtures
2. Plumbing fixtures
3. Doors and trim
4. Masonry (reused masonry may only be used for flatwork)
5. Electrical devices
6. Appliances
7. Foundations or portions of foundations

Note: Reused material must be in compliance with the appropriate Title 24 requirements.

(h) Section A4.106.5, Table A4.106.5.1(1), Table A4.106.5.1(2), Table A4.106.5.1(3) and Table A4.106.5.1(4) of the 2013 Edition of the California Green Building Standards Code are hereby amended to read as follows:

A4.106.5 Cool roof for reduction of heat island effect. Roofing materials for Tier 1 and Tier 2 buildings shall comply with this section.

**TABLE A4.106.5.1(1)
TIER 1 – LOW-RISE RESIDENTIAL**

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	13 & 15	0.63	0.75	82
> 2:12	10-15	0.20	0.75	27

**TABLE A4.106.5.1(2)
TIER 2 – LOW-RISE RESIDENTIAL**

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	2, 4, 6-15	0.68	85	85
> 2:12	2, 4, 6-15	0.28	85	35

**TABLE A4.106.5.1(3)
TIER 1 – HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND MOTELS**

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	10&11, 13-15	0.63	0.75	82
> 2:12	2-15	0.20	0.75	27

**TABLE A4.106.5.1(4)
TIER 2 – HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND MOTELS**

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	2-15	0.68	0.85	85
> 2:12	2-15	0.28	0.85	35

(i) Section A4.303.4 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.303.4 Nonwater supplied urinals and composting toilets. Nonwater supplied urinals or composting toilets are installed throughout the scope of the permit or comply with Sections 1101.1 thru 1101.8 of the California Civil Code, which ever is the most restrictive.

(j) Section A4.404.3 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.404.3 Building systems. Use premanufactured building systems to eliminate solid sawn lumber whenever possible. One or more of the following premanufactured building systems is used throughout:

1. Composite floor joist or premanufactured floor framing system
2. Composite roof rafters or premanufactured roof framing system
3. Panelized (SIPS, ICF or similar) wall framing system
4. Other methods approved by the enforcing agency

(k) Section A4.405.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.405.1 Prefinished building materials. Utilize prefinished building materials which do not require additional painting or staining. One or more of the following building materials that do not require additional resources for finishing are used:

1. Exterior trim not requiring paint or stain
2. Windows not requiring paint or stain
3. Siding or exterior wall coverings which do not require paint or stain

(l) Section A4.405.4 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.405.4 Use of building materials from rapidly renewable sources. One or more of the following materials manufactured from rapidly renewable sources or agricultural by-products is used for a minimum of 2.5 percent of the total value, based on estimated cost of materials on the project:

1. Insulation
2. Bamboo or cork
3. Engineered products
4. Agricultural based products
5. Other products acceptable to the enforcing agency

Note: The intent of this section is to utilize building materials and products which are typically harvested within a 10-year or shorter cycle.

(m) Section A4.407.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A4.407.1 Drainage around foundations. Install foundation and landscape drains which discharge to a dry well, sump, bioswale or other approved on-site location except when not required by state code or locally approved ordinance.

(n) Sections A4.408.1 and A4.408.1.1 of the 2013 Edition of the California Green Building Standards Code are hereby amended to read as follows:

A4.408.1 Enhanced construction waste reduction. Nonhazardous construction and demolition debris generated at the site is diverted to recycle or salvage in compliance with one of the following:

- Tier 1. At least a 65 percent reduction
- Tier 2. At least a 75 percent reduction

A4.408.1.1 Documentation. Deleted.

(o) Section A5.106.4.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A5.106.4.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic,

provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 15 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.

(p) Table A5.106.4.3 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A5.106.4.3 Changing rooms. For buildings with over 10 tenant-occupants, provide changing/shower facilities for tenant-occupants only in accordance with Table A5.106.4.3 or document arrangements with nearby changing/shower facilities.

TABLE A5.106.4.3

NUMBER OF TENANT-	SHOWER/CHANGING FACILITIES REQUIRED	2-TIER (12" X 15" X 72") PERSONAL EFFECTS
0-10	1 unisex shower	1
11-50	1 unisex shower	2
51-100	1 unisex shower	3
101-200	1 shower stall per gender	4
Over 200	1 shower stall per gender for each 200 additional tenant-occupants	One 2-tier locker for each 50 additional tenant-occupants

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates

(q) Section A5.106.6.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A5.106.6.1 Reduce parking capacity. With the approval of the enforcement authority, employ strategies to reduce on-site parking area by 20% by one or both of the following:

1. Use of on street parking or compact spaces, illustrated on the site plan; or
2. Implementation and documentation of programs that encourage occupants to carpool, ride share or use alternate transportation.

Note: Strategies for programs may be obtained from local TMAs.

(r) Section A5.106.11.2, Table A5.106.11.2.2 and Table A5.106.11.2.3 of the 2013 Edition of the California Green Building Standards Code are hereby amended to read as follows:

A5.106.11.2 Cool Roof for reduction of heat island effect. Use roofing materials having a minimum aged solar reflectance and thermal emittance complying with Sections A5.106.11.2.1 and A5.106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) complying with Section A5.106.11.2.3 and as shown in Table A5.106.11.2. 2 for Tier 1 or Table A5.106.11.2.3 for Tier 2.

TABLE A5.106.11.2.2 [BSC]

TIER 1

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	1 - 16	0.63	0.75	82
> 2:12	1 - 16	0.20	0.75	27

TABLE A5.106.11.2.3

TIER 2

ROOF SLOPE	CLIMATE ZONE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	SRI
£ 2:12	1 - 16	0.68	0.85	85
> 2:12	1 - 16	0.28	0.85	35

(s) Section A5.406.1 of the 2013 Edition of the California Green Building Standards Code is hereby amended to read as follows:

A5.406.1 Choice of materials. Compared to other products in a given product category, choose materials proven to be characterized by one or more of the following for a minimum of 5 percent of the total value, based on estimated cost of materials on the project.

SECTION 37. Section 24.108 of Article XV, Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.108. 2013 California Energy Code adopted. The City of Vernon hereby adopts by reference the 2013 California Energy Code, as published by the California Building Standards Commission, California Code of Regulations, Title 24, Part 6, including all of its tables, indices, appendices, addenda and footnotes subject, however, to the amendments, additions and deletions set forth in this article. Except as otherwise provided herein, or as later amended, said California Energy Code is hereby referred to and by such reference is incorporated herein as if fully set forth as the Energy Code of the City of Vernon.

SECTION 38. Section 24.109 of Article XV, Chapter 24, Building and Construction, of the Code of the City of Vernon is amended to read as follows:

Sec. 24.109. Energy Code amendments, additions, and deletions. The 2013 California Energy Code is amended as follows:

(a) Paragraph (i) is hereby added to Section 100 of the 2010 California Energy Code to read as follows:

(i) Energy permit fee. Energy permit fees shall be set forth in a fee schedule adopted by resolution of the City Council.

A reinspection fee may be assessed for each inspection or reinspection when such portion of the work for which an inspection is called is not complete or when corrections called for are not made.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available at the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which the inspection is requested, or for deviating from the plans requiring the approval of the building official.

In instances where reinspection fees have been assessed, the city may deny additional inspection of the work until the required fees are paid.

SECTION 39. Sections 24.79 and 24.80 of Article XI of Chapter 24, Building and Construction, of the Code of the City of Vernon are hereby repealed and shall be referred to as sections to be reserved.

Secs. 24.79 to 24.80. Reserved.

SECTION 40. Findings and Justifications. Attached hereto as Exhibit A and by this reference incorporated herein, are the findings of fact of the City Council that justify local amendments and to the California Building Standards Code, Title 24 CCR, on the basis of specific local climatic, topographic or geologic conditions. Exhibit A is hereby expressly adopted and staff is hereby directed to submit said Exhibit A to the California Building Standards Commission as required by law.

SECTION 41. Ordinances Repealed. Any ordinance, part of an ordinance, or code section in conflict with this Ordinance is hereby repealed.

SECTION 42. Severability. If any chapter, article, section, subsection, subdivision, paragraph, sentence, clause, or phrase or word of this Ordinance or any part thereof is for any reason held to be unconstitutional or invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have adopted this Ordinance and each chapter, article, section, subsection, subdivision, sentence, clause or phrase thereof, irrespective of the fact that any one or more chapters, articles, sections, subsections, subdivisions, clauses, paragraphs, sentences, clauses, phrases or words be declared unconstitutional, or invalid, or ineffective.

SECTION 43. Effect of Code on Past Actions and Obligations. The adoption of this Ordinance does not affect any civil lawsuit instituted or filed or prosecutions for ordinance violations committed on or prior to the effective date of this Ordinance, does not waive any fee or penalty due and unpaid prior to the effective date of this Ordinance and does not affect the validity of any bond or cash deposit posted, filed or deposited pursuant to the requirements of any ordinance.

SECTION 44. References to Prior Code. Unless superseded and expressly repealed, references in City forms, documents and regulations to the chapters and sections of the former Ordinance No. 1176, shall be construed to apply to the corresponding provisions contained within this Ordinance. Ordinance No. 1176 of the City of Vernon and all other ordinances or parts of ordinances in conflict herewith are hereby superseded and expressly repealed.

SECTION 45. Penalty. Unless otherwise provided in the Vernon Municipal Code, any person violating any provision of this Ordinance shall be guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding one thousand dollars, or by imprisonment in jail for a term not exceeding six months, or both such fine and imprisonment.

SECTION 46. Copies on File with City Clerk. Pursuant to Government Code Section 50022.6, one certified copy of each of the following: 2013 Fire Code, 2013 California Building Code, 2013 California Electrical Code and 2006 Edition of the ICC Electrical Code Administrative Provisions, 2013 California Mechanical Code, 2013 California Plumbing Code, 2013 California Existing Building Code, 2012 International Existing Building Code, 2013 California Residential Code,

2013 California Green Building Standards Code, and 2013 California Energy Code shall be made available for public inspection in the office of the City Clerk.

SECTION 47. Book of Ordinances. The Interim City Clerk, or Deputy City Clerk shall attest and certify to the adoption of this Ordinance and shall cause this Ordinance and the Interim City Clerk's, or Deputy City Clerk's, certification to be entered in the Book of Ordinances of the Council of this City. The Interim City Clerk, or Deputy City Clerk, shall cause this ordinance to be published or posted as required by law.

SECTION 48. Effective Date. This ordinance becomes effective shall be in full force on the thirty-first day after the passage thereof; provided, however that where complete plans for buildings have been filed and are pending for building permits prior to the effective date of this Ordinance, permits may be issued, and the applicant may proceed with the construction in strict compliance with Ordinance No. 1176, provided however that physical construction is started within one hundred eighty (180) days from the date of issuance of the permit and continued to completion according to said Ordinance No. 1176.

APPROVED AND ADOPTED this 17th day of December, 2013.

Name: _____
Title: Mayor / Mayor Pro-Tem

ATTEST:

Interim City Clerk / Deputy City Clerk

APPROVED AS TO FORM:

Christina R. Sansone, Esq.
Special Counsel to the City

EXHIBIT A

FINDINGS AND JUSTIFICATIONS FOR AMENDMENTS TO THE 2013 CALIFORNIA BUILDING STANDARDS CODE

The Community Services and Fire Departments have recommended that changes and modifications be made to the Codes and have advised that certain said changes and modifications to the 2013 Editions of the California Fire, Building, Electrical, Mechanical, Plumbing, Existing Building, Residential, Green Building Standards, and Energy Code are reasonably necessary due to local conditions in the City of Vernon as described below. Although findings are not necessary for the 2006 ICC Electrical Code Administrative Provisions and the 2012 International Existing Building Code, they are also set forth herein to further clarify that they are reasonably necessary due to local conditions in the City of Vernon.

Key to Justifications for Amendments to The 2013 California Building Standards Code

- A** **Administrative.** Amendments are necessary for administrative clarification. They do not modify a Building Standard pursuant to Sections 17958, 17958.5, and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards throughout the City of Vernon.

- B** **Climatic.** Amendments are justified on the basis of a local climatic conditions. The seasonal climatic conditions during the late summer and fall create severe fire hazards to the public health and welfare in the City of Vernon. The hot, dry weather in combination with Santa Ana winds results in extreme fire conditions for the community and increase the likelihood of fire spreading (conflagration) from one building to another. The aforementioned conditions combined with the geological characteristics of the county and near the City create hazardous conditions for which departure from the California Building Standards Code is required.

- C** **Geological.** Amendments are justified on the basis of local geological conditions. The City of Vernon is subject to earthquake hazards caused by its location in an active seismic activity area. Faults which potentially cause seismic activity in the City include the Whittier Fault to the east, the Raymond Fault to the north, and the Newport-Inglewood Fault to the west. Said faults are generally considered major Southern California earthquake faults which may experience rupture at any time. Such geological conditions can create tremendous loss of life and structures in the City. Thus, because the City is within seismic area which includes the aforementioned earthquake faults within the County of Los Angeles and near the City, the modifications and changes cited herein are designed to better limit property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

- D** **Topographical.** This amendment is justified on the basis of local topographical conditions. The City of Vernon is coupled with the density of buildings, limited setbacks, narrow access to buildings, narrow streets potentially create a problem for governmental agencies to respond to emergency conditions. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The heavy rains tend to over-saturate the soil for a short time period during the year, having a detrimental effect on in-ground structures

affected by varying moisture conditions.

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
104.7.2	Administrative	This amendment provides investigation assistance when the fire code official requires reinforcement and validation of origin, cause, and circumstances of an emergency event or explanations to the threat or risk of an identified problem. This change was previously adopted and included in Ordinance 1177.
104.12	Administrative	Fire apparatus and personnel respond to numerous false alarm responses due to owner/occupants not maintaining their fire alarm and/or fire protection systems. The time taken to respond to these non-emergency incidents can limit the ability of emergency responders to be available for response to legitimate emergencies and calls for assistance. The City should have the ability to collect for this additional work with the rationale that the owner or responsible party will maintain their fire alarm and/or fire protection systems if a penalty is incurred for the false alarm. This change was previously adopted and included in ordinance 1177
104.13	Administrative, Climatic, Geological, Topographical	At times, vehicles are left positioned on thoroughfare locations that restrict and block access to emergency vehicles. This act can impede the ability of emergency responders to arrive, investigate, and function at the scene of the incident on a timely basis, potentially causing more harm, damage, and property loss. Operators have the responsibility to position their vehicles in locations that will not hamper emergency responders from doing they're job. This change was previously adopted and included in Ordinance 1177
104.14	Climatic, Geological, Topographical	At times, stock, product, materials, and vehicles are left at sites that restrict and block access to emergency vehicles or obstruct ingress/egress to emergency personnel. This act can impede the ability of emergency responders to safety and quickly function at the scene of the incident, potentially causing more harm, damage, and property loss. Owners, occupants, and operators have the responsibility to position their product, materials, and vehicles in locations that will not hamper emergency responders from doing they're job. This change was previously adopted and included in Ordinance 1177
104.15	Administrative	Occasionally scheduled activities endorsed by property owners, their agents, and production companies occur at locations and facilities in the City that require guidance and service in the preservation of life and property. Approving fire safety personnel, trained to

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		recognize and eliminate unsafe acts, prevent fires, and other hazardous actions will save life and property in the City. This change was previously adopted and included in ordinance 1177.
105.1.4	Administrative	The City Council shall set forth the permit and plan review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time occupants construct and/or modify the structure, building, facility or operation without providing plans or obtaining a permit for the changes. The City should have the ability to collect for this investigational work. This change was previously adopted and included in Ordinance 1177.
105.1.1	Administrative	Certain activities historically have been hazardous at work locations. Operational permits annually regulate these activities to reduce or eliminate the risks, whereas construction permits direct the building or installation of specific operational systems or functions. Permits must be posted conspicuously, either permanently or for a limited time, for view by inspectors. This change was previously adopted and included in Ordinance 1177.
105.6.25	Climatic, Geological, Topographical	Large amounts of loose wood products are a fire hazard. Currently, this permit does not incorporate pallet storage. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City. This change was previously adopted and included in ordinance 1177.
105.6.48	Climatic, Geological, Topographical	Currently, some activities or operations occur at locations that increase the potential for loss of life or property. This permit addresses these activities and operations by regulating safer practices at facilities in the City. This change was previously adopted and included in Ordinance 1177.
105.7.15	Administrative, Climatic, Geological, Topographical	Currently, this permit is not listed in the CFC. The addition of this construction permit will standardize the installation of high-piled combustible storage in racks along with the requirement of providing a floor plan. The addition of this requirement will direct safer storage within buildings and facilities. This change was previously adopted and included in Ordinance 1177
105.7.16	Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		<p>building during a fire.</p> <p>In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants, control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building.</p> <p>In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including "sounding" roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction. This change was previously adopted and included in Ordinance 1177.</p>
105.8	Administrative	The permittee and/or its agents shall be held responsible to ensure its work complies with the code and with other regulations or laws adopted by the State and this responsibility should not be shifted in any way to the City or its employees. This change was previously adopted and included in Ordinance 1177.
113.6	Administrative	This amendment provides the Fire Department with administrative provisions for the establishment and review of fees for services. This change was previously adopted and included in ordinance 1177.
113.7	Administrative	Certain business operations create additional potential hazards at the workplace. These hazards are regulated by the fire code, and may require a specialized inspection. The City Council shall set forth the permit fees by resolution in order to ensure sufficient funds are collected for services provided. The City should have the ability to collect for this additional work. This change was previously adopted and included in Ordinance 1177.
113.8	Administrative	The City Council shall set forth the permit and plan

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		review fees by resolution in order to ensure sufficient funds are collected for services provided. From time to time permittees call for an inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work. This change was previously adopted and included in Ordinance 1177.
113.9	Administrative	From time to time permittees call for an inspection when the work has not been completed or is not performed in conformance with the plans causing the City to re-inspect the work. The City should have the ability to collect for this additional work. This change was previously adopted and included in Ordinance 1177.
114	Administrative, Climatic, Geological, Topographical	The owner, occupant and/or its agents shall be held responsible to ensure that safety and preventative measures are provided for employees, visitors, and emergency responders by maintaining fire prevention within its buildings, facilities, storage and processes. If the owner or occupant does not comply with the established codes and regulations, fees and/or penalties can be imposed. The City should have the ability to recover the costs of these expenses from the violator(s). This change was previously adopted and included in ordinance 1177.
202	Administrative	Definitions for fire chief and fire code official are imprecise. These modifications are specific to Vernon Fire Department. The definitions for awning, false alarm, fire safety officer and safety container were not included in section 2 of the CFC and are referenced in the adoptions, so by including them, the terms are identified. This change was previously adopted and included in Ordinance 1177.
304.1.1.1	Administrative, Climatic, Geological, Topographical	Unregulated installations of solar photovoltaic systems, garden, and landscaping located on the roofs of buildings can create conditions which severely hinder firefighting ventilation operations. Firefighting ventilation allows the escape of heat, smoke, and gases from the interior compartments of a building, reduces the chances of flashover condition, and greatly helps restore and maintain a tenable interior environment in a building during a fire. In many firefighting situations, roof top vertical ventilation is the only form of ventilation that can be employed to meet the need to quickly and effectively ventilate a building's interior. Rapid ventilation is often a critical element in allowing firefighters to enter a burning building to search for and rescue occupants,

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		control the spread of fire, and create a tenable environment to extend the time a person could survive within a burning building. In order to traverse a roof to place an effective ventilation opening near a fire, it is required that firefighters have access to the roof surface of a building. Firefighters utilize techniques including “sounding” roofs with tools such as a rubbish hook, cutting small inspection holes with power saws in roofs to check for extension, and by using infrared cameras to check for heat concentrations on the surface of a roof. Installing roof obstructions without regard for firefighting ventilation operations may prevent firefighters from safely traveling along strong underlying roof structural members. Installing layers of waterproofing, building material, soil, and vegetation to the surface of a roof will very likely delay or preclude firefighting roof top ventilation operations unless consideration for ventilation operations were incorporated into the layout design of the roof obstruction. This change was previously adopted and included in Ordinance 1177.
311.2.2	Climatic, Geological, Topographical	Vacant premises that have fire protection systems installed must be required to maintain the systems to function in case of a fire. This change was previously adopted and included in ordinance 1177.
312.2	Administrative, Topographical	The City of Vernon is an industrial city, with large trucks, tractor-trailers, and heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment. This change was previously adopted and included in Ordinance 1177.
315.4.3	Climatic, Geological, Topographical	Large amounts of loose wood products are a fire hazard. This addition will standardize storage practices at facilities that store substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs. This change was previously adopted and included in Ordinance 1177.
315.4.4	Climatic, Geological, Topographical	Significant volume pallet storage increases the potential for loss due to the increased fire load. Keeping pallet stacks organized and orderly will assist in limiting the potential for pallets falling over and restricting fire spread. This change was previously adopted and

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		included in Ordinance 1177.
315.4.4.1	Climatic, Geological, Topographical	Combustible rubbish tends to accumulate around pallet stacks. These light fuels allow combustion to occur more readily if not cleaned up. Large amounts of pallet materials add to the fire hazard. This addition will standardize storage practices at facilities that stockpile substantial amounts of pallets in the City, and provide the fire department avenues to access the product piles if a fire occurs. This change was previously adopted and included in Ordinance 1177.
315.4.4.2	Climatic, Geological, Topographical	Climatic, geologic, and topographic events or conditions may cause pallets to fall onto a structure/awning potentially causing serious injury or death & extensive property damage. This change was previously adopted and included in Ordinance 1177.
503.2.1	Administrative, Topographical	The Fire Department emergency vehicles are very large and difficult to maneuver when restrictions are placed on them during incidents. Additionally, some vehicles have outrigger supports that extend the footprint of the vehicle beyond the prescribed access road dimensions in the current fire code. This code modification increases the requirements of the fire apparatus access roads, thus providing sufficient space for movement and placement of emergency equipment. This change was previously adopted and included in Ordinance 1177.
505.1	Administrative, Topographical	The City of Vernon is a industrial city, with large industrial building which may be set back from the public right-of-way, also with large trucks, tractor-trailers and heavy equipment moving on public and private roadways and on property. The increase in the address numbers will provide better visibility for emergency response.
507.5	Administrative, Climatic, Geological, Topographical	The City of Vernon has established standards for the spacing of fire hydrants. This change was previously adopted and included in Ordinance 1177.
507.5.5	Administrative, Climatic, Geological, Topographical	The City of Vernon has established standards for regulating the clear space around fire hydrants. This spacing standard assists in providing fire department apparatus direct access to fire hydrants. This change was previously adopted and included in Ordinance 1177.
901.4.7	Administrative, Topographical	The City of Vernon is an industrial city, with large trucks, tractor-trailers, and heavy equipment moving on public and private roadways and property. Occasionally large vehicles strike protective guard posts bending, breaking and pushing them against fire protection equipment, hazardous materials containers, and other

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		specialized appliances the posts are designed to protect. This code modification increases the requirements of the guard posts, thus providing better protection of the equipment. This change was previously adopted and included in Ordinance 1177.
2404.2	Climatic, Geological, Topographical	This code was amended to include regulations for spray finishing operations that may occur outside. This change was previously adopted and included in Ordinance 1177.
5601.1	Climatic, Geological, Topographical	Allowing explosive materials in or near densely positioned structures along with a sizeable general population creates an untenable potential for the City and its business activities. This change was previously adopted and included in Ordinance 1177.
5604.2.9.6.1	Climatic, Geological, Topographical	This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1177.
6101.4	Climatic, Geological, Topographical	Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire. This change was previously adopted and included in Ordinance 1177.
6103.2.2.1	Climatic, Geological, Topographical	Inside storage or use of LP-gas creates problems that can compromise workplace safety and potentially cause or add to the danger of fire department personnel fighting fires. LP-gas cylinders have been struck, fallen over and been damaged, leaked and rocketed around, and exploded when exposed to heat and fire. This change was previously adopted and included in Ordinance 1177.
6104.1	Climatic, Geological, Topographical	This code was amended to address storage and the separation from schools, and to define the volume of product stored. This change was previously adopted and included in Ordinance 1177.
6104.3.3	Climatic, Geological, Topographical	Improperly positioned containers of pressurized flammable gas pose a significant fire and safety hazard to facilities, employees, and emergency responders. This change was previously adopted and included in Ordinance 1177.
Appendix C	Administrative	Appendix C of the California Fire Code provides requirements for the locations and distribution of fire hydrants. The City of Vernon currently establishes standards for Fire Hydrant Location and Distribution. The requirements within the Fire Code would conflict with the City's requirements; therefore it is

<u>Fire Code Section</u>	<u>Justification</u>	<u>Rationale</u>
		recommended that Appendix C of the California Fire Code be deleted. This change was previously adopted and included in Ordinance 1177.
D103.1	Administrative	Appendix D of the California Fire Code provides requirements for fire apparatus access roads. Previous City Codes have been amended to establish City regulations for Fire Access Road Turnarounds. The requirements within the Fire Code would conflict with the City's requirements; therefore it is recommended that Section D103.1 of Appendix D of the California Fire Code be amended to be in accordance with the City of Vernon standard. This change was previously adopted and included in Ordinance 1177.

Amendments to the 2013 Editions of the California Building, Electrical, Mechanical, Plumbing, Existing Building, Residential, Green Building Standards, and Energy Codes, and the 2006 ICC Electrical Code Administrative Provisions and the 2012 International Existing Building Code, are found reasonably necessary based on the climatic, geological and/or topographical conditions cited above and for administrative clarification are listed as follows:

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
105.8	Administrative	<p><u>Rationale</u> –Section 105.8 establishes the responsibilities of the permittee ensuring that the work is carried out in accordance with the approved plans, the code and any other law or regulation.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
110.7	Administrative	<p><u>Rationale</u> – This section permits the City to charge a reinspection fees for specific instances where the permittee has caused additional work for the City inspector and created the need for an additional site inspection.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
111.1	Climatic, Geological, Topographical	<p><u>Rationale</u> – Many buildings within the City are left in unsafe condition when they are vacated by the prior tenant. In order to ensure the safety of the next occupant the City must inspect the building to determine if is safe to occupy in its current condition or</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>if illegal work has been performed that must be properly permitted. In addition due to the uniqueness of business that operate in Vernon the City must ensure that the structure complies with the requirements of the code for the proposed occupancy. This may include proper number of plumbing fixtures, appropriate storage heights, proper fire systems and appropriate facilities to store or utilize hazardous materials. Because of these factors the City requires each new occupant to obtain a certificate of occupancy for its specific use.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
1505.1	Climatic	<p><u>Rationale</u> – Section 1505.1 is amended to allow only certain classes of roofs to be installed to the City. Due the tight spacing of large industrial buildings it appropriate that only roofs with fire resistive properties be installed in the city to reduce the potential of the spread of fire in a wind storm.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p>
1507.3.1	Geological	<p><u>Rationale</u> - Section 1507.3.1 is amended to require concrete and clay tiles to be installed only over solid structural sheathing boards. The change is necessary because there were numerous observations of tile roofs pulling away from wood framed buildings following the 1994 Northridge Earthquake. The SEAOSC/LA City Post Northridge Earthquake committee findings indicated significant problems with tile roofs was due to inadequate design and/or construction. Therefore, the amendment is needed to minimize such occurrences in the event of future significant earthquakes.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
1613.6.1	Geological	<p><u>Rationale</u> - The inclusion of the importance factor in this equation has the unintended consequence of reducing the minimum seismic separation distance for important facilities such as hospitals, schools, police and fire stations from adjoining structures. The proposal to omit the importance factor from Equation 12.12-1 will ensure that a safe seismic separation distance is provided. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1613.7	Geological	<p><u>Rationale</u> - Observed damages to one and two family dwellings of light frame construction after the Northridge Earthquake may have been partially attributed to vertical irregularities common to this type of occupancy and construction. In an effort to improve quality of construction and incorporate lesson learned from studies after the Northridge Earthquake, the proposed modification to ASCE 7-10 Section 12.2.3.1 Exception 3 by limiting the number of stories and height of the structure to two stories will significantly minimize the impact of vertical irregularities and concentration of inelastic behavior from mixed structural systems. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1613.8	Geological	<p><u>Rationale</u> - A joint Structural Engineers Association of Southern California (SEAOSC), Los Angeles County and Los Angeles City Task Force investigated the performance of concrete and masonry construction with flexible wood diaphragm failures after the Northridge earthquake. It was concluded at that time that continuous ties are needed at specified spacing to control cross grain tension in the interior of the diaphragm. Additionally, there was a need to limit subdiaphragm allowable shear loads to control combined orthogonal stresses within the diaphragm. Recognizing the importance and need to continue the recommendation made by the task force while taking into consideration the improve performances and standards for diaphragm construction today, this proposal increases the continuous tie spacing limit to 40 ft in lieu of 25 ft and to use 75% of the allowable code diaphragm shear to determine the depth of the sub-diaphragm in lieu of the 300 plf and is deemed appropriate and acceptable. Due to the frequency of this type of failure during the past significant earthquakes, various</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>jurisdictions within the Los Angeles region have taken this additional step to prevent roof or floor diaphragms from pulling away from concrete or masonry walls. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1613.9	Geological Topographical	<p><u>Rationale</u> - Due to the difficulty of fire suppression vehicles accessing winding and narrow hillside properties and the probabilities for future earthquakes in the Los Angeles region, this technical amendment is required to address the special needs for buildings constructed on hillside locations. A joint Structural Engineers Association of Southern California (SEAOSC) and both the Los Angeles County and Los Angeles City Task Force investigated the performance of hillside building failures after the Northridge earthquake. Numerous hillside failures resulted in loss of life and millions of dollars in damage. These criteria were developed to minimize the damage to these structures and have been in use by both the City and County of Los Angeles for several years with much success. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
1613.10	Geological	<p><u>Rationale</u> - The California Building Code has little to no information regarding the safe design and construction requirements for ceiling suspension systems subject to seismic loads. It is through the experience of prior earthquakes, such as the Northridge Earthquake, that this amendment is proposed so as to minimize the amount of bodily and building damage within the spaces in which this type of ceiling will be installed. This proposed amendment complements ASCE 7-10 Chapter 13 Section 13.5.6.2.2 and the cited reference to ASTM E580. The amended requirements retained herein are a continuation of portions of an amendment adopted during the previous code adoption cycles.</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.
1704.5	Geological	<p><u>Rationale</u> - The language in Section 1704.5 of the California Building Code permits the owner to employ any registered design professional to perform structural observations with minimum guideline. However, it is important to recognize that the registered design professional responsible for the structural design has thorough knowledge of the building he/she designed. By requiring the registered design professional responsible for the structural design or their designee who were involved with the design to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. Additional requirements are provided to help clarify the role and duties of the structural observer and the method of reporting and correcting observed deficiencies to the building official. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1704.5.1	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, the language in Section 1704.5.1 of the California Building Code would permit many low-rise buildings and structures with complex structural elements to be constructed without the benefit of a structural observation. By requiring a registered design professional to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. An exception is provided to permit simple structures and buildings to be excluded. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1704.5.3	Geological	<u>Rationale</u> - Results from studies after the 1994 Northridge Earthquake indicated that a lot of the damage was attributed to a lack of quality control during construction resulting in poor performance of the building or structure. Therefore, the proposed amendment requires special inspection for concrete with a compressive strength greater than 2,500 pounds per

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>square inch. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Table 1705.3	Administrative	<p><u>Rationale</u> - The requirements for the special inspection of concrete are contained in Table 1705.3, including the installation of anchors in concrete. The table currently references the 2008 Edition of the ACI 318. Appendix D9.2 has been revised in the 2011 Edition of the ACI 318 specifically to address the inspection of concrete anchors, both adhesive and mechanical anchors. Table 1705.3 is being amended to reflect the new provisions in the 2011 Edition of the ACI 318.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification. It does not modify a Building Standards pursuant to Sections 17958 and 18941.5 of the California Health and Safety Code and does not require an express finding to be made pursuant to Sections 17958.5 and 17958.7 of the California Health and Safety Code. This amendment established administrative standards for the effective enforcement of building standards 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 Building Code, 2,500 psi to improve quality of control during construction 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 Building Code.</p>
1705.11	Geological	<p><u>Rationale</u> - In Southern California, very few detached one- or two-family dwellings not exceeding two stories above grade plane are built as “box-type” structures, especially those in hillside areas and near the oceanfront. Many steel moment frames or braced frames and/or cantilevered columns within buildings can still be shown as “regular” structures by calculations. With the higher seismic demand placed on buildings and structures in this region, the language in Section 1705.11 Exception 3 of the California Building Code would permit many detached one- or two-family dwellings not exceeding two stories above grade plane with complex structural elements to be constructed without the benefit of special inspections. By requiring special inspections, the quality of major structural elements and connections that affect</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>the vertical and lateral load resisting systems of the structure will greatly be increased. The exception should only be allowed for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design category A, B and C.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1711.1.1, 1711.1.2 and Chapter 35	Administrative	<p><u>Rationale</u> - ASTM D 1760-06 contains exactly the same standard test methods as ASTM D 1761-88 (2000) ε1 except for joist hangers. Standard test methods for joist hangers found in former ASTM D 1761-88 (2000)ε1 sections 41 to 50 were removed from ASTM D 1761-06 due to their inclusion and update in the new standard ASTM D 7147-05 Standard Specification for Testing and Establishing Allowable Loads of Joist Hangers. Nonetheless, both the 2009 and 2012 editions of the IBC reference ASTM D1761-2006 for this testing. As a result, testing of joist hangers no longer has a valid reference standard.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification. It does not modify a Building Standards pursuant to Sections 17958 and 18941.5 of the California Health and Safety Code and does not require an express finding to be made pursuant to Sections 17958.5 and 17958.7 of the California Health and Safety Code. This amendment established administrative standards for the effective enforcement of building standards 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 Building Code.</p>
1807.1.4	Climatic and Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that wood foundation systems are effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effects of constant moisture in the soil and wood-destroying organisms. Wood foundation systems not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic events and wet applications. The proposed amendment takes the precautionary steps to reduce or</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>eliminate potential problems that may result in using wood foundation systems that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1807.1.6	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by following prescriptive design provisions that does not take into consideration the surrounding environment. Plain concrete performs poorly in withstanding the cyclic forces resulting from seismic events. In addition, no substantiating data has been provided to show that under-reinforced foundation walls are effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1809.3	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		structures in the city.
1809.7 and Table 1809.7	Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that under-reinforced footings are effective in resisting seismic loads and may potentially lead to a higher risk of failure. Therefore, this proposed amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by following prescriptive design provisions for footing that does not take into consideration the surrounding environment. It was important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force that investigated the poor performance observed in the 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1809.12	Climatic and Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that timber footings are effective in supporting buildings and structures during a seismic event, especially while being subjected to deterioration caused by the combined detrimental effects of moisture in the soil and wood-destroying organisms. Timber footings, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber footings that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1810.3.2.4	Climatic and Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that timber deep foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Timber deep foundation, when they are not properly treated and protected against deterioration, has performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber deep foundation that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1905.1.3	Geological	<p><u>Rationale</u> - The design provision for wall pier detailing was originally introduced by SEAOC in 1987 to legacy Uniform Building Code (UBC) and was included in the 1988 UBC through the 1997 UBC (2002 CBC). The wall pier detailing provision prescribed under Section 1905.1.4 was intended for high seismic zones equivalent to current Seismic Design Category D, E or F. Section 1905.1.3 was added as a complement of wall pier detailing in Seismic Design Category C (formerly seismic zones 2A and 2B under the legacy model code). ACI 318 Commentary R 21.1.1 emphasized “it is essential that structures assigned to higher Seismic Design Categories possess a higher degree of toughness”, and further encourages practitioners to use special structural wall system in regions of high seismic risk. ASCE 7</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>Table 12.2-1 permits intermediate precast structural wall system in Seismic Design Category D, E or F. Current Section 1905.1.3 does not limit to just structures assigned to Seismic Design Category C. The required shear strength under 21.3.3, referenced in Section 21.4.6, is based on V_u under either nominal moment strength or two times the code prescribed earthquake force. The required shear strength in 21.6.5.1, referenced in Section 21.9.8.2 (IBC 1905.1.4), is based on the probable shear strength, V_e under the probable moment strength, M_{pr}. In addition, the spacing of required shear reinforcement is 8 inches on center under Section 21.4.6 instead of 6 inches on center with seismic hooks at both ends under Section 21.9.8.2. Requirement of wall pier under Section 21.9.8.2 would enhance better ductility.</p> <p>By virtue of ACI 318 Section 21.1.1.7(d), intermediate precast structural walls designed under Section 21.4, material requirements intended under provisions 21.1.4, 21.1.5, 21.1.6, and 21.1.7 would be excluded for structures assigned to Seismic Design Category D, E or F. Clarification of ACI 318 Chapter 21 is needed to ensure that structural walls designed under ASCE 7 Table 12.2-1 using the intermediate wall panel category would conform to ductility requirements comparable to special structural wall; and conformance to the long standing practice of ACI 318 to impose special requirements for high seismic design regions. Whereas new ACI 318 section 21.4.4 extends requirement for wall piers be designed in accordance with 21.9 or 21.13. This amendment gives explicit requirement under which design and detailing need to conform to special structural wall system provision in ACI-318 Section 21.9, which covers both cast-in-place as well as precast. This amendment further gives building officials the tools to enforce minimum life safety building performance under earthquake forces in Seismic Design Category D, E or F. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p>Current practice in commercial buildings constructed using precast wall panel systems have large window and door openings and/or narrow wall piers. Wall panels varying up to three stories high with openings resembles wall frame which is not currently recognized under any of the defined seismic-force resisting systems other than consideration of structural wall system. Conformance to special structural wall system design and detailing of wall piers ensures minimum life safety performance in resisting earthquake forces for structures in Seismic Design Category D, E or F. Proposed modification separates wall piers designed for structures assigned to Seismic Design Category C from those assigned to Seismic Design Category D, E or F.</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1905.1.8	Geological	<p><u>Rationale</u> - This proposed amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
1905.1 and 1905.1.10 thru 1905.1.12	Geological	<p><u>Rationale</u> - This amendment is intended to carry over critical provisions for the design of concrete columns in moment frames from the legacy 1997 Uniform Building Code. Increased confinement is critical to the integrity of such columns and these modifications ensure that it is provided when certain thresholds are exceeded.</p> <p>In addition, this amendment carries over from the legacy 1997 Uniform Building Code a critical provision for the design of concrete shear walls. It essentially limits the use of very highly gravity-loaded walls in being included in the seismic load resisting system, since their failure could have catastrophic effect on the building.</p> <p>Furthermore, this amendment was incorporated in the code based on observations from the 1994 Northridge Earthquake. Rebar placed in very thin concrete topping slabs have been observed in some instances to have popped out of the slab due to insufficient concrete coverage. This modification ensures that critical boundary and collector rebars are placed in sufficiently thick topping slab to prevent buckling of such reinforcements.</p> <p>This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		structures in the city.
2304.9.1	Geological	<p><u>Rationale</u> - Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. This proposed amendment is a continuation of a similar amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2304.11.7	Climatic and Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that wood used in retaining or crib walls are effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood used in retaining or crib walls, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using wood in retaining or crib walls that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p>Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. This proposed amendment is a continuation of a similar amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2304.5	Geological	<p><u>Rationale</u> - The overdriving of nails into the structural wood panel still remains a concern when pneumatic nail guns are used for wood structural panel shear wall nailing. Box nails were observed to cause massive and multiple failures of the typical 3/8-inch thick plywood during the 1994 Northridge Earthquake. The use of clipped head nails as allowed in Table A1 of AFPA SDPWS footnote referencing to ASTM F1667, continues to be restricted from being used in wood structural panel shear walls where the minimum nail head size must be maintained in order to minimize nails from pulling through sheathing materials. Clipped or mechanically driven nails used in wood structural panel shear wall construction were found to perform much less in previous wood structural panel shear wall testing done at the University of California Irvine. The existing test results indicated that, under cyclic loading, the wood structural panel shear walls were less energy absorbent and less ductile. The panels reached ultimate load capacity and failed at substantially less lateral deflection than those using same size hand-driven nails. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
2305.5	Geological	<p><u>Rationale</u> - ICC-ES AC 155 Acceptance Criteria for Hold-downs (Tie-Downs) Attached to Wood Members is widely used to establish allowable values for hold-down connectors in evaluation reports. AC 155 uses monotonic loading to establish allowable values. Yet, cyclic and dynamic forces imparted on buildings and structures by seismic activity cause more damage than equivalent forces that are applied in a monotonic manner. However, the engineering, regulatory and manufacturing industries have not reached consensus on the appropriate cyclic or dynamic testing protocols. This condition is expected to continue for some time. In the interim, this proposed amendment continues to limit the allowable capacity to 75% of the evaluation report value to provide an additional factor of safety for statically tested anchorage devices. Steel plate washers will reduce the additional damage that can result when hold-down connectors are fastened to wood framing members. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles with additional editorial revisions for clarification.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2306.2	Geological	<p><u>Rationale</u> - The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner.</p> <p>In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing.</p> <p>Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This proposed amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board.</p> <p>This proposed amendment continues the previous amendment adopted during the 2010 code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2306.3	Geological	<p><u>Rationale</u> - The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with stapled nails are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner.</p> <p>In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with stapled nails would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with stapled nails appeared to be much lower in strength and stiffness than</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>wood structural panels fastened with common nails. It was recommended that the use of stapled nail as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing.</p> <p>Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This proposed amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board.</p> <p>This proposed amendment continues the previous amendment adopted during the 2010 code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2308.3.4	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. The proposed change is to limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2308.9.3.1, 2308.9.3.2	Geological	<p><u>Rationale</u> - 3/8" thick, 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
and Figure 2308.9.3.2		<p>observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This proposed amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Table 2308.12.5	Geological	<p><u>Rationale</u> - This proposed amendment specifies minimum sheathing thickness and nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
2308.12.5	Geological	<p><u>Rationale</u> - This proposed amendment is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>

<u>Building Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
2609	Climatic	<p><u>Rationale</u> - Light transmitting roof panel are dangerous to fire fighters. Given the large size of buildings in Vernon, smoke from a fire during windstorm event may mask the location of these roof panels that may have been weakened by a fire causing them to collapse if they were to be stepped on.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p>
2610.9	Climatic	<p><u>Rationale</u> - Skylights can be dangerous to fire fighters. Given the large size of buildings in Vernon, smoke from a fire during windstorm event may mask the location of skylights that may have been weakened by a fire causing them to collapse if they were to be stepped on. Therefore the proposed amendment provides additional protections to resolve these concerns</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another.</p>
J101	Administrative	<p><u>Rationale</u> - This proposed amendment sets forth administrative provisions for the issuance of grading permits and provides safeguards for neighboring properties and the public. It also establishes that all grading permits must also comply with the provisions of Chapter 21 of the City code. Chapter 21 set forth the NPDES provisions that must be met in order to comply with the City's MS4 permit.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Electrical Code Article</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
110.14(A)	Climatic, Geological, Topographical	<p><u>Rationale</u> – Aluminum conductors expand and contract with heat. In order to ensure that proper connections are maintained for the life of the service compression terminals are required.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon, increase the likelihood of fire spreading (conflagration) from one building to another;</p>

<u>Electrical Code Article</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
200.6	Climatic, Geological, Topographical	<p><u>Rationale</u> – Ground wiring coloring should be consistent to avoid confusion, potential hazards and permits electricians to easily recognize what type of system they are working on. The color coding that is being amended is consistent with industry standards.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
230.22	Climatic, Geological, Topographical	<p><u>Rationale</u> – The amendment increase's the physical integrity of the service entry greatly reducing the potential of a fire hazard from exposed cable.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
334.10(3), (4) and (5)	Climatic, Geological, Topographical	<p><u>Rationale</u> – Romex is a substandard wiring method in commercial/industrial setting. The unprotected cable can easily be damaged creating a fire hazard. Therefore it should only be permitted in dwelling occupancies.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of</p>

<u>Electrical Code Article</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>

<u>2006 ICC Electrical Code Administrative Provisions Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
303.1	Administrative	<p><u>Rationale</u> - Many buildings within the City are left in unsafe condition when they are vacated by the prior tenant. In order to ensure the safety of the next occupant the City must inspect the building to determine if is safe to occupy in its current condition or if illegal work has been performed that must be properly permitted. In addition due to the uniqueness of business that operate in Vernon the City must ensure that the structure complies with the requirements of the code for the proposed occupancy. This may include proper number of plumbing fixtures, appropriate storage heights, proper fire systems and appropriate facilities to store or utilize hazardous materials. Because of these factors the City requires each new occupant to obtain a certificate of occupancy for its specific use.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
401.3(5)	Climatic, Geological, Topographical	<p><u>Rationale</u> – Low voltage systems are still capable of creating hazardous condition and therefore should be permitted.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p>

<u>2006 ICC Electrical Code Administrative Provisions Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city;</p> <p>The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p>
402.6	Administrative	<p><u>Rationale</u> – This provision establishes the responsibilities of the permittee ensuring that the work is carried out in accordance with the approved plans, the code and any other law or regulation.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
402.7	Administrative	<p><u>Rationale</u> – In order to ensure that the service connection has sufficient power to supply to building and to avoid the creation of hazardous condition, by overloading the service entrance connection or transformer it is necessary for the applicant to inform the utility of any load increase in load.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
402.8	Administrative	<p><u>Rationale</u> – In order to ensure that the electrical equipment is safe to operate it should be inspected to ensure conformance with the code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>2006 ICC Electrical Code Administrative Provisions Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
404.2	Administrative	<p><u>Rationale</u> – The City has established a fee schedule based on the actual cost of service.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
1102	Administrative	<p><u>Rationale</u> – The City Council should establish the criteria for members of the board of appeals and the terms of the members. Therefore this conflicting section of the code should be removed.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
1201.3	Administrative	<p><u>Rationale</u> – The City believes that it is necessary that it approves the testing agency to ensure that it is competent in its workmanship and methodology.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Mechanical Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
114.6	Administrative	<p><u>Rationale</u> – This provision establishes the responsibilities of the permittee ensuring that the work is carried out in accordance with the approved plans, the code and any other law or regulation.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and</p>

<u>Mechanical Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
Table 114.1	Administrative	<p><u>Rationale</u> – The City has established a fee schedule based on the actual cost of service.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Plumbing Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
103.9	Administrative	<p><u>Rationale</u> – This provision establishes the responsibilities of the permittee ensuring that the work is carried out in accordance with the approved plans, the code and any other law or regulation.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
Table 103.4	Administrative	<p><u>Rationale</u> – The City has established a fee schedule of its own based on the actual cost of service.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
Table 4-422.1	Administrative	<p><u>Rationale</u> – This amendment bases the number of plumbing fixtures required to be installed within a building should be based on the actual amount of individuals occupying the building rather than the total area occupied by a certain type of use. The will ensure that a sufficient number toilets and lavatories are provided to ensure a sanitary environment.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative</p>

<u>Plumbing Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		standards for the effective enforcement of building standards.
1101.1	Administrative	<p><u>Rationale</u> – The City of Vernon is subject to a municipal NPDES permit issued by the Los Angeles Regional Water quality control board. This MS4 permit requires certain to establish certain requirements on storm water runoff. The City has adopted these requirements in Chapter 21 of the City code. This amendment requires storm water runoff from the site to comply with the requirements of Chapter 21 of the City Code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>2012 International Existing Building Code</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
202	Administrative	<p><u>Rationale</u> – This amendment makes it clear that the City utilizes the Construction Codes as adopted by the State of California as its Buildings Codes, not the International Code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
Appendix A Chapter A1	Administrative	<p><u>Rationale</u> – This amendment utilizes Chapter A1 as adopted by the State of California as the design criteria for Unreinforced Masonry Buildings rather than the provision contained in the International Existing Building Code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
R105.8	Administrative	<p><u>Rationale</u> – This provision establishes the responsibilities of the permittee ensuring that the work is carried out in accordance with the approved plans, the code and any other law or regulation.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
R108.7	Administrative	<p><u>Rationale</u> – This section permits the City to charge a reinspection fees for specific instances where the permittee has caused additional work for the City inspector and created the need for an additional site inspection.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
R301.1.3.2	Geological	<p><u>Rationale</u> – After the 1994 Northridge Earthquake, the Wood Frame Construction Joint Task Force recommended that the quality of wood frame construction need to be greatly improved. One such recommendation identified by the Task Force is to improve the quality and organization of structural plans prepared by the engineer or architect so that plan examiners, building inspectors, contractors and special inspectors may logically follow and construct the presentation of the seismic force-resisting systems in the construction documents. For buildings or structures located in Seismic Design Category D₀, D₁, D₂ or E that are subject to a greater level of seismic forces, the requirement to have a California licensed architect or engineer prepare the construction documents is intended to minimize or reduce structural deficiencies that may cause excessive damage or injuries in wood frame buildings. Structural deficiencies such as plan and vertical irregularities, improper shear transfer of the seismic force-resisting system, missed details or connections important to the structural system, and the improper application of the prescriptive requirements of the California Residential Code can be readily addressed by a registered design professional.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R301.1.4	Topographical,	<p><u>Rationale</u> - Due to the difficulty of fire suppression vehicles accessing winding and narrow hillside properties and the</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
	Geological	<p>probabilities for future earthquakes in the Los Angeles region, this technical amendment is required to address the special needs for buildings constructed on hillside locations. A joint Structural Engineers Association of Southern California (SEAOSC) and both the Los Angeles County and Los Angeles City Task Force investigated the performance of hillside building failures after the Northridge earthquake. Numerous hillside failures resulted in loss of life and millions of dollars in damage. These criteria were developed to minimize the damage to these structures and have been in use by both the City and County of Los Angeles for several years with much success. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles.</p> <p><u>Findings</u> - The density of buildings, limited setbacks, narrow access to buildings and narrow streets in the City of Vernon could potentially impact governmental agencies response to emergency conditions.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Table 301.2.2.1.1 and R301.2.2.1.2	Geological	<p><u>Rationale</u> - The purpose of this amendment is to revise the IRC short period design acceleration from 1.25g to 1.0g for SDC D₂ as ASCE7-10 limits the short period acceleration to 1.5g working out to S_{DS} of 1.0g; then to limit the S_{DS} to 1.25g for IRC SDC E structure reclassification. Currently, under ASCE 7-10, SDC D has a wide range from 0.50g ≤ S_{DS} and that for regular structures S_S may be taken as 1.5g for calculating S_{DS}. This translates to setting a limit of S_{DS} =1.00 g for regular structure based on ASCE 7. IRC places S_{DS} > 1.25g into SDC E. However, under IRC, structures meeting the regular structure criteria may be re-classified as D₂. The limit of 1.25g for the SDC E re-classification in IRC imposes a lower standard for irregular residential structures. This gives a disparity for the equal risk concept in the development of the ASCE 7-10 seismic hazard maps. ASCE 7-10 seismic hazard maps have also adjusted S_S and S₁ downward for parts of the middle and eastern United States between 2009 IRC and 2012 IRC.</p> <p>The SDC D₂ limit in Table R301.2.2.1.1 is changed to 0.83g < S_{DS} ≤ 1.00g. This corresponds to the delineation to a limit of S_S of 1.5g for regular structure under ASCE 7-10. The added exception item 2.4 permits reclassification of SDC E to D₂ up to 1.25g. The associate risk for one- and two-family residential regular structure justifies the increase limit of S_{DS}. It is expected that structures beyond the limits set forth will be engineered under IBC provisions.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.
Items 1, 3 and 5 of Section R301.2.2.2.5	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by limiting the type of irregular conditions specified in the International Residential Code. Such limitations are intended to reduce the potential structural damage expected in the event of an earthquake. The cities and county of the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of the shear walls and all associated elements when designed for high levels of seismic loads.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R301.2.2.3.8	Geological	<p><u>Rationale</u> - There is no limitation for weight of mechanical and plumbing fixtures and equipment in the International Residential Code. Requirements from ASCE 7 and the International Building Code would permit equipment weighing up to 400 lbs. when mounted at 4 feet or less above the floor or attic level without engineering design. Where equipment exceeds this requirement, it is the intent of this proposed amendment that a registered design professional be required to analyze if the floor support is adequate and structurally sound.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R401.4	Climatic, Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>foundation that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. However, an exception is made for non-occupied, single-story storage structures that pose significantly less risk to human safety and may utilize the wood foundation guidelines specified in this Chapter. This proposed amendment is a continuation of an amendment adopted during previous code adoption cycles for the California Residential Code.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
RR403.1.2, R403.1.3 and R403.1.5	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under-reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. Furthermore, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. The proposed change is to limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. This proposed amendment is consistent with an amendment adopted during previous code adoption cycles for the California Residential Code.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R404.2	Climatic and Geological	<p><u>Rationale</u> - No substantiating data has been provided to show that wood foundation wall is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>Wood foundation walls, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation walls that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. This proposed amendment is consistent with an amendment adopted during previous code adoption cycles for the California Residential Code.</p> <p><u>Findings</u> - Adverse climatic conditions and strong winds such as those in existence in the City of Vernon increase the likelihood of fire spreading (conflagration) from one building to another;</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R501.1	Geological	<p><u>Rationale</u> - There is no limitation for weight of mechanical and plumbing fixtures and equipment in the International Residential Code. Requirements from ASCE 7 and the International Building Code would permit equipment weighing up to 400 lbs. when mounted at 4 feet or less above the floor or attic level without engineering design. Where equipment exceeds this requirement, it is the intent of this proposed amendment that a registered design professional is required to analyze if the floor support is adequate and structurally sound.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R503.2.4	Geological	<p>Section R502.10 of the Code does not provide any prescriptive criteria to limit the maximum floor opening size nor does Section R503 provide any details to address the issue of shear transfer near larger floor openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger floor openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R501.1	Lines 37 and 38 of Table R602.3(1)	<p><u>Rationale</u> - The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner.</p> <p>In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D₀, D₁ and D₂ unless it can be substantiated by cyclic testing.</p> <p><u>Findings</u> - This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p>The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Footnote "b" of Table R602.3(2)	Geological	<p><u>Rationale</u> - The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner.</p> <p>In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D₀, D₁ and D₂ unless it can be substantiated by cyclic testing.</p> <p>This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Table R602.10.3(3)	Geological	<p><u>Rationale</u> - Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment increase the length and limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. In addition, shear walls sheathed with other materials are prohibited in Seismic Design Category D₀, D₁ and D₂ to be consistent with the design limitation for similar shear walls found in the California Building Code. The poor performance of such shear walls in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this proposed amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and county of the Los Angeles region has taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
Table R602.10.4	Geological	<p><u>Rationale</u> - 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This proposed amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake.</p> <p>In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D₀, D₁ and D₂ unless it can be substantiated by cyclic testing.</p> <p>This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Figure R602.10.6.1	Geological	<p><u>Rationale</u> - 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This proposed amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R602.10.6.2	Geological	<p><u>Rationale</u> - 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This proposed amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
Table R602.10.5	Geological	<p><u>Rationale</u> - It was observed by the Structural Engineer Association of Southern California (SEAOSC) and the Los Angeles City Task Force that high aspect ratio shear walls experienced many failures during the 1994 Northridge Earthquake. This proposed amendment provides a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment is consistent with an amendment adopted during the previous code adoption cycle for the California Residential Code.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R602.10.2.3	Geological	<p><u>Rationale</u> - Plywood shear walls with high aspect ratio experienced many failures during the Northridge Earthquake. This proposed amendment specifies a minimum braced wall length to meet an aspect ratio consistent with other sections of the Residential Code as to provide a uniform standard of</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is consistent with an amendment adopted during previous code adoption cycles for the California Residential Code.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R602.10.6.4	Geological	<p><u>Rationale</u> - 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This proposed amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This proposed amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R602.10.9.1	Geological	<p><u>Rationale</u> - With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.
R606.2.4	Geological	<p><u>Rationale</u> - The addition of the word “or” will prevent the use of unreinforced parapets in Seismic Design Category D₀, D₁ or D₂, or on townhouses in Seismic Design Category C.</p> <p>This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R606.12.2.3	Geological	<p><u>Rationale</u> - Reinforcement using longitudinal wires for buildings and structures located in high seismic areas are deficient and not as ductile as deformed rebar. Having vertical reinforcement closer to the ends of masonry walls help to improve the seismic performance of masonry buildings and structures.</p> <p>This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R602.3.2	Geological	<p><u>Rationale</u> - The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear wall system for buildings and structures subject to high seismic loads by eliminating single top plate construction. The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system. A single top plate is likely to be over nailed due to the nailing requirements at a rafter, stud, top plate splice, and braced wall panel edge in a single location. In addition, notching on a single top plate for plumbing, ventilation and electrical wiring may reduce the load transfer capacity of the plate without proper detailing. Majority of buildings and structures designed and built per the California Residential Code with a single top plate may not need structural observation and special inspections. The potential construction mistakes mentioned above could not be caught and corrected by knowledgeable engineers and inspectors, and could jeopardize structural performance of buildings and structures located in high seismic areas.</p> <p>This proposed amendment is a continuation of an</p>

<u>Residential Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>amendment adopted during the previous code adoption cycle.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R803.2.4	Geological	<p><u>Rationale</u> - Section R802 of the Code does not provide any prescriptive criteria to limit the maximum roof opening size nor does Section R803 provide any details to address the issue of shear transfer near larger roof openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger roof openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>
R1001.3.1	Geological	<p><u>Rationale</u> - The performance of fireplace/chimney without anchorage to the foundation has been observed to be inadequate during major earthquakes. The lack of anchorage to the foundation can result in the overturning or displacement of the fireplace/chimney.</p> <p><u>Findings</u> - The City of Vernon is affected by the nearby location of earthquake faults that can create tremendous loss of life and structures in the city.</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
101.12	Administrative	<p><u>Rationale</u> – The City has established a fee schedule of its own based on the actual cost of service. This section also permits the City to charge a reinspection fees for specific instances where the permittee has caused additional work for the City inspector and created the need for an additional site inspection.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		building standards.
202	Administrative	<p><u>Rationale</u> – A definition is provided for sustainability for clarification.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
301.1	Administrative	<p><u>Rationale</u> – The proposed editorial change to the indicated section provides clarity and consistency for the application of the CALGreen code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
301.1.1	Administrative	<p><u>Rationale</u> - The purpose of the proposed amendment is to simplify the language and increase the scope of application, thus requiring CALGreen to be applied to all residential projects.</p> <p>California State Housing and Community Development proposed the above 2013 CALGreen code section. The proposed section can only be applied to an existing house only if the volume or size of the condition space is increased. This proposed section, as written, does not encompass interior remodels. The proposed amendment modifies the State language to require additions, alterations, and interior remodels to comply with sections of CALGreen that are relevant to the scope of work.</p> <p>CALGreen and other green building codes have been developed and implemented for some very basic reasons: water, energy, and air quality. The 2010 U.S. Census shows that California has a population of 37.25 million, 13.7 million homes and with ownership at 56.7%. UCLA Anderson Construction Forecast, a highly recognized authority in predicting the future of construction in the State, has provided the following statistics:</p> <p style="text-align: center;">2011 612,000 new homes constructed</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		<p>2012 763,000 new homes constructed 2013 Just fewer than one million homes will be constructed 2014 1.3 million new homes constructed Total 3.675 million new homes in four years.</p> <p>These simple numbers illustrate that the new homes built in the last four years only equal approximately 9.9% of the total housing stock in the State. These houses comply with the new 2010 Green Standards, but the larger challenge is with the existing housing inventory.</p> <p>The bulk of California's energy is generated by aging power plants. Increasingly, the development and application of alternate energy methods such as photovoltaics has gained market adoption. Coupling these new energy generation processes with new energy saving measures in the 2013 California Energy Code will allow us to potentially offset the need to construct new power plants, which would equate to a savings of billions of tax-payer dollars.</p> <p>Water conservation is another issue being addressed by the new green codes. CALGreen addresses water conservation with requirements for landscape irrigation and plumbing fixtures. In the 2013 code edition kitchen facets will now have to comply with a slightly reduced flow. Starting January 1, 2014 a new State law goes into effect that prohibits the selling of any plumbing fixture that does not conform to the new established flow rates.</p> <p>CALGreen also addresses indoor air quality. Within the code there are multiple limits for VOC (volatile organic compounds) in paints, sealants and construction adhesives and formaldehyde contents in composite wood products. These new standards which restrict VOC and formaldehyde contents have shown to improve indoor air quality and minimize or eliminate occupant health issues related to sick building syndrome.</p> <p>The majority of the building stock in the greater Los Angeles region are existing residences. The U.S. Census and the UCLA Anderson Construction Forecast reveal that there are 13.7 million homes in California in 2010, with 2.7 million new homes built in the past three years, illustrates that there are more than five times the number of existing homes as there are new homes built under the CALGreen code. To reduce the impact that the existing housing stock is having on energy, water, and air quality, this amendment proposes to address compliance</p>

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		<p>with the CALGreen code at the time when a permit is issued. There are some estimates that existing buildings account for up to 40% of greenhouse gas emissions. This amendment offset this impact on the communities by implementing the green building measures whenever possible. Any projects that require a permit to be issued will be required to comply with only those sections that are relevant to the scope of work and thereby begin to contribute to improving the environment. This amendment established green building standards and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
R5.408.3	Administrative	<p><u>Rationale</u> - On occasions, projects are proposed on sites where the soil is contaminated and falls outside the scope of a designated authority. The addition of Note #3 provides a mechanism for a local jurisdiction to administer to the removal or remediation of contaminated soils within guidelines established by the city or method developed by the applicant and approved by the local jurisdiction.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
R601.1	Administrative	<p><u>Rationale</u> - The proposed editorial changes to the table of reference and standards in Chapter 6 have been update to the to 2013 CALGreen code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		building standards.
A4.105.2	Administrative	<p><u>Rationale</u> - The current code section provides no guidelines for the percentage of materials to be recycled or reused to achieve compliance with this section. The proposed editorial change provides a minimum percentage of material that must be recycled or reused for the applicant to obtain compliance.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A4106.5. Table A4106.5(1), Table A4106.5.1(2), Table A4.106.5.1(3) and Table A4.106.5.1(4)	Administrative	<p><u>Rationale</u> - In tables A4.106.5.1.1, A4.105.1.2, A5.106.1.1, and A5.106.1.2 are indicating new values for Cool roof ratings. These new values for the cool roof rating are not in alignment with standards being proposed by the California Energy Commission. Tier 1 cool roof values are a prescriptive requirement in the 2008 (current) Building Energy Efficiency Standards, and they have been shown to be cost-effective through studies previously conducted by the California Energy Commission in support of the standards. The proposed editorial changes will bring Chapter 6 and Chapter 11 into alignment and provide consistency for the applicant to achieve compliance with both chapters.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A4.303.4	Administrative	<p><u>Rationale</u> - The proposed code does not stipulate the number of fixtures to be installed to achieve compliance. The proposed editorial change clarifies the quantity of fixtures to be installed to comply with this code section.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
A4.404.3	Administrative	<p><u>Rationale</u> - The proposed code does not stipulate the amount of premanufactured components to be installed to achieve compliance. The proposed editorial change clarifies the quantity to be installed to comply with this code section.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A4.405.1	Administrative	<p><u>Rationale</u> - The application statement allows for the applicant to stipulate that pre-finished materials are not possible and still achieve compliance with the requirement. The editorial change removes the condition and requires compliance to achieve credit.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A4.405.4	Administrative	<p><u>Rationale</u> - The current code section provides no guidelines for the percentage of materials to be used from rapidly renewable sources. The proposed editorial change provides a minimum percentage of material from a rapidly renewable source that must be use for the applicant to obtain compliance and receive credit.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A4.407.1	Administrative	<p><u>Rationale</u> - The current language does not take into consideration the requirements of other codes or ordinances. The proposed editorial change addresses the requirements of other codes or ordinances and eliminates an applicant ability to achieve credit while complying with the requirement of another code.</p> <p><u>Findings</u> - This amendment is necessary for administrative</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.
A4.408.1 and A4.4081.1	Administrative	<p><u>Rationale</u> - An applicant complying with either TIER 1 or 2 should receive credit for this section because the proposed project meets either of the exceptions. If an applicant is to comply with this section they would need to achieve the stated waste diversion percentages. Any other approach is giving credit for not complying which is not within the scope of the CALGreen code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A5.106.4.1	Administrative	<p><u>Rationale</u> - An applicant complying with either TIER 1 or 2 should receive credit for this section because the proposed project meets either of the exceptions. If an applicant is to comply with this section they would need to achieve the stated waste diversion percentages. Any other approach is giving credit for not complying which is not within the scope of the CALGreen code.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A5.106.4.3	Administrative	<p><u>Rationale</u> - Under the current table the applicant can obtain credit for installing zero changing rooms. By modifying the requirement in the above table, the applicant must install at least one changing room to receive credit for this section.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of</p>

<u>Green Building Standards Code Section</u>	<u>Local Condition</u>	<u>Explanation and Findings</u>
		building standards.
A5.106.6.1	Administrative	<p><u>Rationale</u> - This section does not establish a minimum number of reduced parking spaces to achieve compliance, only that the local authority approves the proposed reduction. The editorial change establishes a minimum percentage to achieve a credit for this section.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A5.106.11.2, Table A5106.11.2.2 and Table A5.106.11.2.3	Administrative	<p><u>Rationale</u> - In Tables A5.106.11.2.2 and A5.106.11.2.3 are indicating new values for Cool roof ratings. These new values for the cool roof rating are not in alignment with standards being proposed by the California Energy Commission. Tier 1 cool roof values are a prescriptive requirement in the 2008 (current) Building Energy Efficiency Standards, and they have been shown to be cost-effective through studies previously conducted by the California Energy Commission in support of the standards. The proposed editorial changes will bring Chapter 6 and Chapter 11 into alignment and provide consistency for the applicant to achieve compliance with both chapters.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>
A5.406.1	Administrative	<p><u>Rationale</u> - The current section does not provide any guidelines for a quantity of materials to achieve compliance. The editorial change establishes a minimum percentage for the different categories located within the section.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>

<u>Energy Code</u>	<u>Local</u>	<u>Explanation and Findings</u>
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<u>Section</u>	<u>Condition</u>	
100	Administrative	<p><u>Rationale</u> – The City has established a fee schedule of its own based on the actual cost of service. This section also permits the City to charge a reinspection fees for specific instances where the permittee has caused additional work for the City inspector and created the need for an additional site inspection.</p> <p><u>Findings</u> - This amendment is necessary for administrative clarification and does not modify a Building Standards pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment establishes administrative standards for the effective enforcement of building standards.</p>