ORDINANCE NO. 1791

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, REPEALING CHAPTER 15.04 OF THE GARDENA MUNICIPAL CODE AND ADOPTING A NEW CHAPTER 15.04 WHICH ADOPTS BY REFERENCE THE 2016 CALIFORNIA STATE BUILDING CODE WITH AMENDMENTS; ADOPTING BY REFERENCE THE INTERNATIONAL PROPERTY MAINTENANCE CODE; ADOPTING BY REFERENCE THE UNIFORM BUILDING SECURITY CODE; AND ADOPTING BY REFERENCE THE 2017 LOS ANGELES COUNTY FIRE CODE

WHEREAS, California Health & Safety Code Section 18901 et seq. provides that the Building Standards Commission shall adopt a California Building Standards Code ("CBSC") based on specified uniform codes with input from various State Departments; and

WHEREAS, the 2016 CBSC has been adopted and is codified in Title 24 of the California Code of Regulations; and

WHEREAS, California Health & Safety Code Section 17922 provides that the Department of Housing and Community Development is to adopt the CBSC and other regulations; and

WHEREAS, the Department of Housing and Community Development has adopted the most recent version of the CBSC; and

WHEREAS, California Health & Safety Code Section 17958.5 provides that a city may make changes in the provisions adopted pursuant to Health and Safety Code Section 17922 and published in the CBSC or other regulations upon specified findings; and

WHEREAS, California Health & Safety Code Section 17958 further provides that, if a city does not amend, add, or repeal ordinances or regulations to impose those requirements or make changes, the provisions published in the CBSC or other regulations shall be applicable to the city and shall be effective 180 days after publication of the CBSC by the California Building Standards Commission; and

WHEREAS, the California Building Standards Commission adopted the 2016 Codes to be effective as of January 1, 2017; and

WHEREAS, the City of Gardena contracts with the Los Angeles County Fire Department and is required to adopt the most recent version of the Los Angeles County Fire Code; and

WHEREAS, the County of Los Angeles has adopted the 2017 California Fire Code with amendments; and

WHEREAS, the City Council of the City of Gardena has determined that it would like to adopt the CBSC by reference, as well as make certain amendments thereto; and

WHEREAS, the City Council of the City of Gardena has determined that it would also like to adopt the 2017 Los Angeles County Fire Code by reference; and

WHEREAS, the City Council of the City of Gardena has determined that it would also like to adopt the International Property Maintenance Code by reference; and

WHEREAS, the City Council of the City of Gardena has determined that it would also like to adopt the 1997 Uniform Building Security Code by reference; and

WHEREAS, prior to adopting this Ordinance, the City Council adopted Resolution No. 6309, making the necessary findings to amend the California Building Standards Code;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, DOES HEREBY ORDAIN, AS FOLLOWS:

SECTION 1. Chapter 15.04 of the Gardena Municipal Code is hereby repealed.

SECTION 2. Chapter 15.04 is hereby added to the Gardena Municipal Code to read, as follows:

Chapter 15.04
General Building Provisions

15.04.010 Adoption of the California Building Standards Code

A. Subject to the amendments and changes set forth herein, the following Parts of the 2016 California Building Standards Code as set forth in Title 24 of the California Code of Regulations, are hereby adopted by reference in their entirety:

Part 1 – California Building Standards Administrative Code

Part 2 – California Building Code and the following Divisions and Appendices:
- Division II Scope and Administration to the CA Building Code
- Appendix F Rodent-proofing
- Appendix H Signs
- Appendix I Patio Covers
- Appendix J Grading

Part 2.5 – California Residential Building Code and the following Appendices:
- Appendix A Sizing and Capacities of Gas Piping
- Appendix B Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category I Appliances, And Appliances Listed for Use with Type B Vents
- Appendix C Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems
- Appendix D Recommended Procedure for Safety Inspection of An Existing Appliance Installation

- Appendix E Radon Control Methods
- Appendix G Swimming Pools, Spas and Hot Tubs
- Appendix H Patio Covers
- Appendix J Existing Buildings and Structures
- Appendix K Sound Transmission
- Appendix M Home Day Care R-3 Occupancy
- Appendix N Venting Methods
- Appendix O Automatic Vehicular Gate

Part 3 – California Electrical Code

Part 4 – California Mechanical Code

Part 5 – California Plumbing Code and the following Appendices:

- Appendix A Recommended Rules for the Sizing of Water Piping System
- Appendix D Sizing of Storm Water Drainage Systems
- Appendix G Sizing of Vent System
- Appendix I Installation Standard for PEX Tubing Systems for Hot and Cold Water Distribution

Part 6 – California Energy Code

Part 8 – California Historical Building Code

Part 11 – California Green Building Standards Code ("Cal Green")

Part 12 – California Reference Standards Code

B. The most recent version of the Los Angeles County Fire Code, as set forth in Gardena Municipal Code section 8.08.020, shall be part of the Building Regulations of the City. In cases of conflict between any provision between the Los Angeles County Fire Code and the other provisions of the Building Regulations of the City of Gardena, the most restrictive provision shall prevail.

15.04.020 Fees

The City shall charge fees for all permits, plan checks, inspections and other services performed by the City relating to any portion of the Building Regulations of the City or any other provision of Title 15 of the Gardena Municipal Code in an amount set by resolution of the City Council.

15.04.030 Amendment of Part 2, California Building Code

A. Section 105.2, Building, 1 through 7, of Division II Scope and Administration, of Chapter 1 of the California Building Code is hereby amended to read as follows:

1. One-story detached accessory building, provided the floor area does not exceed 120 square feet, with three feet clear from a building or property line and conforming to the zoning requirements of the Gardena Municipal Code.

2. [deleted]

3. [deleted]

4. [deleted]

5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18,925 L) and the ratio of height to diameter or width is not greater than 2:1.

6. Sidewalks not more than 30 inches (762) mm above adjacent grade, and not over any basement or story below and are not part of an accessible route.

7. Painting, papering, floor and wall tiling – excluding showers and wet areas, carpeting, cabinets, counter tops not containing plumbing or electrical fixtures, and similar finish work.

B. Section 105.2, Building, 12 of Division II Scope and Administration, of Chapter 1 of the California Building Code is hereby amended to read. as follows:

12. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall, do not require additional support, and are two or more feet from Property lines.

C. Section 1203.2.1 of Chapter 12 of the California Building Code is hereby deleted and a new Section 1203.2.1 is hereby added to read, as follows:

1203.2.1 Openings into attic. Exterior openings into the attic space of any building intended for human occupancy shall be protected to prevent the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of 1/16 inch minimum and 1/8 inch maximum shall be permitted. Openings for ventilation having a least dimension larger than 1/8 inch shall be provided with corrosion-resistant wire cloth screening, hardware cloth or similar material with openings having a least dimension of 1/16 inch minimum and 1/8 inch maximum. Where combustion air is obtained from an attic area, it shall be in accordance with Chapter 7 of the California Mechanical Code.

D. Section 1203.4.1 of Chapter 12 of the California Building Code is hereby deleted and a new Section 1203.4.1 and Section 1203.4.1.1 are hereby added to read, as follows:

1203.4.1 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than one square foot for each 150 square

feet of crawl-space area. Ventilation openings shall be covered for their height and width with any of the following materials, provided that the least dimension of the covering shall not exceed 1/8 inch:

1. Perforated sheet metal plates not less than 0.070 inch thick.
2. Expanded sheet metal plates not less than 0.047 inch thick.
3. Cast-iron grilles or gratings.
4. Extruded load-bearing vents.
5. Hardware cloth of 0.035 inch wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension not exceeding 1/8 inch.

1203.4.1.1 Openings for under-floor ventilation shall be not less than 1 1/2 square feet for each 25 linear feet of exterior wall. Openings shall be covered with corrosion resistant wire mesh with mesh openings not less than 1/16 inch nor more than 1/8 inch in any dimension.

E. Table 1505.1 of Chapter 15 of the California Building Code is hereby amended to read, as follows:

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

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

F. Section 1507.3.1 of Chapter 15 of the California Building Code is hereby amended to read as follows:

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

G. Section 1613.5.2 is added to Chapter 16 of the California Building Code to read as follows:

1613.5.2 Structural Separation. Modify ASCE 7 Section 12.12.3 Equation 12.12-1 as follows:

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

H. Section 1613.5.3 is added to Chapter 16 of the California Building Code to read as follows:

1613.5.3 Values for Vertical Combinations. Modify ASCE 7 Section 12.2.3.1 Exception 3 as follows:

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

I. Section 1613.5.3 is added to Chapter 16 of the California Building Code to read as follows:

1613.5.4 Wood Diaphragms. Modify ASCE 7 Section 12.11.2.2.3 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 sub-diaphragms to transmit the anchorage forces to the main continuous crossties.

2. The maximum diaphragm shear used to determine the depth of the sub-diaphragm shall not exceed 75% of the maximum diaphragm shear.

J. Section 1613.5.5 is added to Chapter 16 of the California Building Code to read as follows:

1613.5.5 Maximum S_{DS} Value in Determination of C_s and E_v. Modify ASCE 7 Section 12.8.1.3 as follows:

12.8.1.3 Maximum S_{DS} Value in Determination of C_s and E_v. The value of C_s and E_v are permitted to be calculated using a value of SDS equal to 1.0 but not less than 70% of S_{DS} as defined in Section 11.4.4, provided that all of the following criteria are met:

1. The structure does not have irregularities, as defined in Section 12.3.2;

2. The structure does not exceed five stories above the lower of the base or grade plane as defined in Section 11.2, and, where present, each mezzanine level shall be considered a story for the purpose of this limit;

3. The structure has a fundamental period, T, that does not exceed 0.5 seconds, as determined using Section 12.8.2;

4. The structure meets the requirements necessary for the redundancy factor, □, to be permitted to be taken as 1.0, in accordance with Section 12.3.4.2;

5. The site soil properties are not classified as Site Classes E or F, as defined in Section 11.4.2; and

6. The structure is classified as Risk Category I or II, as defined in Section 1.5.1.

K. Section 1704.6 of Chapter 17 of the California Building Code is amended to read as follows:

1704.6 Structural Observations. Where required by the provisions of Section 1704.6.6.1 or 1704.6.6.2, the owner or the owner's authorized agent shall employ a registered design professional structural observer to perform structural observations. Structural observation does not include or waive the responsibility for the inspections in Section 110 or the special inspections in Section 1705 or other sections of this code.

The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design; or

2. A registered design professional designated by the registered design professional responsible for the structural design.

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

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

At the conclusion of the work included in the permit, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved. Observed deficiencies shall be reported in writing to the owner or owner's authorized agent, special inspector, contractor and the Building Official. Upon the form prescribed by the Building

Official, the structural observer shall submit to the Building Official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the Building Official.

L. Section 1704.6.1 of Chapter 17 of the California Building Code is amended to read as follows:

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

1. The structure is classified as Risk Category III or IV in accordance with Table 1604.5.

2. The height of the structure is greater than 75 feet above the base.

3. The structure is assigned to Seismic Design Category E, 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.

4. 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.

    a. 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, section 1, of Chapter 17 of the California Building Code is amended to read as follows:

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

Exceptions: Special inspections and tests shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'c, no greater than 2,500 pounds per square inch (psi) regardless of the

compressive strength specified in the construction documents or used in the footing construction.

N. Exception 3 of Section 1705.12 of the California Building Code is amended to read, as follows:

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.

O. Section 1807.1.4 of Chapter 18 of the California Building Code is amended to read as follows:

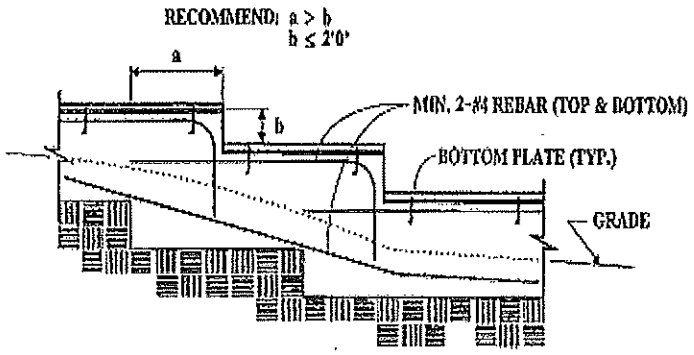
1807.1.4 Permanent wood foundation systems. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E or F.

P. Section 1807.1.6 of Chapter 18 of the California Building Code is amended to read as follows:

1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F.

Q. Section 1809.3 of Chapter 18 of the California Building Code is amended to read as follows:

1809.3 Stepped footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope). For structures assigned to Seismic Design Category D, E or F, the stepping requirement shall also apply to the top surface of grade beams supporting walls. Footings shall be reinforced with four No. 4 bars. Two bars shall be place at the top and bottom of the footings as shown in Figure 1809.3.



STEPPED FOUNDATIONS

FIGURE 1809.3

R. Section 1809.7 and Table 1809.7 of Chapter 18 of the California Building Code are 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 [g]

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. ~~Interior stud-bearing walls shall be permitted to be supported by isolated footings. The footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center.~~ 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. ~~Plain concrete footings for Group R-3 occupancies shall be permitted to be 6 inches thick.~~

S. Section 1809.12 of Chapter 18 of the California Building Code is deleted and a new Section 1809.12 is added to read as follows:

1809.12 Timber footings. Timber footings shall not be used in structures assigned to Seismic Design Category D, E or F.

T. Section 1810.3.2.4 of Chapter 18 of the California Building Code is deleted and a new section 1810.3.2.4 is added to read as follows; subsection 1810.3.2.4.1 remains:

1810.3.2.4 Timber. Timber foundations shall not be used in structures assigned to Seismic Design Category D, E or F.

U. Section 1905.1 of Chapter 19 of the California Building Code is amended to read as follows:

1905.1 General. The text of ACI 318 shall be modified as indicated in Sections 1905.1.1 through 1905.1.8, and ACI 318, Section 18.7.5.

V. Section 1905.1.7 of Chapter 19 of the California Building Code is amended to read as follows:

1905.1.7 ACI 318, Section 14.1.4. Delete ACI 318, Section 14.1.4, and replace with the following:

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

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

a) Structural plain concrete basement, foundation or other walls below the base as defined in ASCE 7 are permitted in detached one- and two-family dwellings three stories or less in height constructed with stud-bearing walls. In dwellings assigned to Seismic Design Category D or E, the height of the wall shall not exceed 8 feet, the thickness shall not be less than 7½ inches, and the wall shall retain no more than 4 feet of unbalanced fill. Walls shall have reinforcement in accordance with 14.6.1. Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement or cementious 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.

> Exception: In detached one- and two-family dwellings three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

c) Plain concrete footings are Not Permitted in seismic zones D and E. 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. For footings that exceed 8 inches in thickness, a minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

~~Exceptions:~~

~~1. In Seismic Design Categories A, B and C, 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 without longitudinal reinforcement 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.~~

~~2. For foundation systems consisting of a plain concrete footing and a plain concrete stemwall, a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.~~

~~3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.~~

W. Sections 1905.1.9 thru 1905.1.11 are added to Chapter 19 of the California Building Code to read as follows:

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

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

18.7.5.8 – At any section where the design strength, □Pn, of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 18.7.6.1 and 18.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 18.7.5.1 through 18.7.5.3 shall be provided. For beams framing into opposite sides of the column, the moment components are permitted to be assumed to be of opposite sign. For the determination of the design strength, □Pn, of the column, these moments are permitted to be assumed to result from the deformation of the frame in any one principal axis.

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

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

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

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

X. Section 2304.10.1 of Chapter 23 of the California Building Code is amended to read as follows:

2304.10.1 Fastener requirements. Connections for wood members shall be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.10.1. Staple fasteners in Table 2304.10.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

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

Y. Section 2304.12.5 of Chapter 23 of the California Building Code is amended to read as follows:

2304.12.5 Wood used in retaining walls and cribs. Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 for soil and fresh water use. Wood shall not be used retaining or crib walls for structures assigned to Seismic Design Category D, E or F.

Z. Section 2305.4 is added to Chapter 23 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 and staples are not permitted. 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.

AA. Section 2305.5 is added to Chapter 23 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 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.

BB. Section 2306.2 of Chapter 23 of the California Building Code is repealed and a new Section 2306.2 is added to read as follows:

2306.2 Wood-frame diaphragms. Wood-frame diaphragms shall be designed and constructed in accordance with AWC SDPWS. Panels shall not be fastened to framing members with staples. 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.

CC. Section 2306.3 of Chapter 23 of the California Building Code is repealed and a new Section 2306.3 is added to read as follows:

2306.3 Wood-frame shear walls. Wood-frame shear walls shall be designed and constructed in accordance with AWC SDPWS. For structures assigned to Seismic Design Category D, E, or F, application of Tables 4.3A and 4.3B of AWC 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. 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 ¼ inch from the edge of the connecting members for shears of 350 plf or less using ASD or 500 plf or less using LRFD.

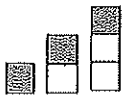
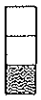
4. Table 4.3B application is not allowed for structures assigned to Seismic Design Category D, E, or F. For structures assigned to Seismic Design Category D, application of Table 4.3C of AWC SDPWS shall not be used below the top level in a multi-level building. Staples are not permitted in Seismic Design Category D, E or F. 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 AWC SDPWS.

DD. Section 2307.2 is added to the 2016 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.

EE. Table 2308.6.1 of the 2016 Edition of the California Building Code is amended to read as follows:

TABLE 2308.6.1[a]
WALL BRACING REQUIREMENTS

SEISMIC DESIGN CATEGORY	STORY CONDITION (SEE SECTION 2308.2)	MAXIMUM SPACING OF BRACED WALL LINES	BRACED PANEL LOCATION, SPACING (O.C.) AND MINIMUM PERCENTAGE (X)			MAXIMUM DISTANCE OF BRACED WALL PANELS FROM EACH END OF BRACED WALL LINE
			Bracing method[b]			
			LIB	DWB, WSP	SFB, PBS, PCP, HPS, GB[c,d]	
A and B		35′- 0″	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	12′- 6″
		35′- 0″	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	12′- 6″
		35′- 0″	NP	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	12′- 6″
C		35′- 0″	NP	Each end and ≤ 25′- 0″ o.c.	Each end and ≤ 25′- 0″ o.c.	12′- 6″
		35′- 0″	NP	Each end and ≤ 25′- 0″ o.c. (minimum 25% of wall length)[e]	Each end and ≤ 25′- 0″ o.c. (minimum 25% of wall length)[e]	12′- 6″
D and E[f,g,h]		25′- 0″	NP	S_{DS} < 0.50: Each end and ≤ 25′- 0″ o.c. (minimum 21% of wall length)[e]	S_{DS} < 0.50: Each end and ≤ 25′- 0″ o.c. (minimum 43% of wall length)[e]	8′- 0″
				0.5 ≤ S_{DS} < 0.75: Each end and ≤ 25′- 0″ o.c. (minimum 32% of wall length)[e]	0.5 ≤ S_{DS} < 0.75: Each end and ≤ 25′- 0″ o.c. (minimum 59% of wall length)[e]	
				0.75 ≤ S_{DS} ≤ 1.00: Each end and ≤ 25′- 0″ o.c. (minimum 37% of wall length)[e]	0.75 ≤ S_{DS} ≤ 1.00: Each end and ≤ 25′- 0″ o.c. (minimum 75% of wall length)	
				S_{DS} > 1.00: Each end and ≤ 25′- 0″ o.c. (minimum 48% of wall length)[e]	S_{DS} > 1.00: Each end and ≤ 25′- 0″ o.c. (minimum 100% of wall length)[e]	

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

NP = Not Permitted.

a. This table specifies minimum requirements for braced wall panels along interior or exterior braced wall lines.

b. See Section 2308.6.3 for full description of bracing methods.

c. For Method GB, gypsum wallboard applied to framing supports that are spaced at 16 inches on center.

d. The required lengths shall be doubled for gypsum board applied to only one face of a braced wall panel.

e. Percentage shown represents the minimum amount of bracing required along the building length (or wall length if the structure has an irregular shape).

f. DWB, SFB, PBS, and HPS wall braces are not permitted in Seismic Design Catergories D or E.

g. Minimum length of panel bracing of one face of the wall for WSP sheathing shall be at least 4'-0" long or both faces of the wall for GB or PCP sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide factual 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.

h. WSP 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.

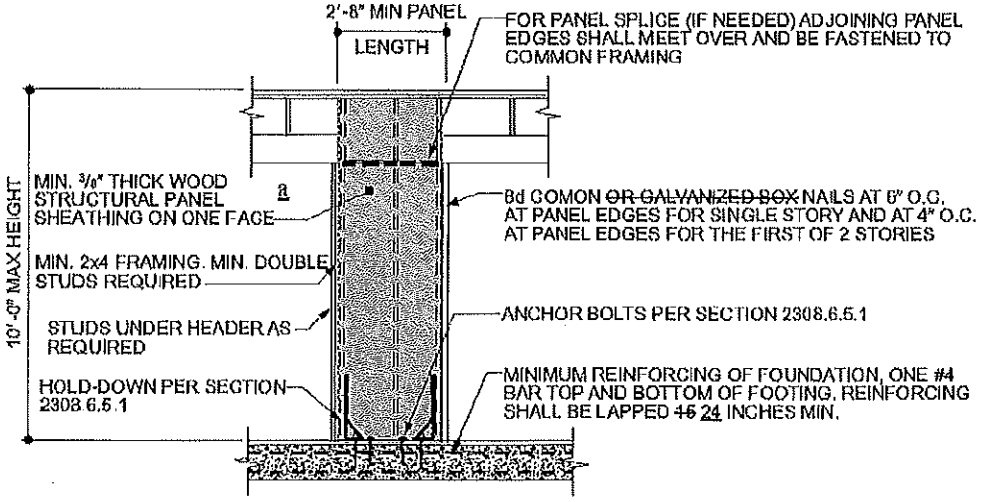
FF. Section 2308.6.5, Figure 2308.6.5.1, and Figure 2308.6.5.2 of the 2016 Edition of the California Building Code are repealed and new Section 2308.6.5, Figure 2308.6.5 and Figure 2308.6.5.2 are added to read as follows:

2308.6.5 Alternative bracing. An alternate braced wall (ABW) or a portal frame with hold-downs (PFH) described in this section is permitted to substitute for a 48-inch (1219 mm) braced wall panel of Method DWB, WSP, SFB, PBS, PCP or HPS. For Method GB, each 96-inch section (applied to one face) or 48-inch section (applied to both faces) or portion thereof required by Table 2308.6.1 is permitted to be replaced by one panel constructed in accordance with Method ABW or PFH.

2308.6.5.1 Alternate braced wall (ABW). An ABW shall be constructed in accordance with this section and Figure 2308.6.5.1. In one-story buildings, each panel shall have a length of not less than 2 feet 8 inches and a height of not more than 10 feet Each panel shall be sheathed on one face with 3/8-inch minimum-thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table 2304.10.1 and blocked at wood structural panel edges. For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch-minimum-thickness wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports. Two anchor bolts installed in accordance with Section 2308.3.1 shall be provided in each panel. Anchor bolts shall be placed at each panel outside quarter points. Each panel end stud shall have a hold-down device fastened to the foundation, capable of providing an approved uplift capacity of not less than 1,800 pounds. The hold-down device shall be installed in accordance with the manufacturer's recommendations. The ABW shall be supported directly on a foundation or on floor framing supported directly on a foundation that is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom. Where the continuous foundation is required to have a depth greater than 12 inches a minimum 12-inch by 12-inch 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~~ 24 inches with the reinforcement required in the continuous foundation located directly under the braced wall line. Where the ABW is installed at the first story of two-story buildings, the wood structural panel sheathing shall be provided on

both faces, three anchor bolts shall be placed at one-quarter points and tie-down device uplift capacity shall be not less than 3,000 pounds

2308.6.5.2 Portal frame with hold-downs (PFH). A PFH shall be constructed in accordance with this section and Figure 2308.6.5.2. The adjacent door or window opening shall have a full-length header. In one-story buildings, each panel shall have a length of not less than 16 inches and a height of not more than 10 feet. Each panel shall be sheathed on one face with a single layer of 3/8-inch minimum-thickness wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Figure 2308.6.5.2. For structures assigned to Seismic Design Category D or E, each panel shall be sheathed on one face with 15/32-inch minimum thickness wood structural panel sheathing nailed with 8d common nails spaced 3 inches on panel edges, 3 inches at intermediate supports and in accordance with Figure 2308.6.5.2. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure 2308.6.5.2. A built-up header consisting of at least two 2-inch by 12-inch boards, fastened in accordance with Item 24 of Table 2304.10.1 shall be permitted to be used. A spacer, if used, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. The clear span of the header between the inner studs of each panel shall be not less than 6 feet and not more than 18 feet in length. A strap with an uplift capacity of not less than 1,000 pound shall fasten the header to the inner studs opposite the sheathing. One anchor bolt not less than 5/8 inch diameter and installed in accordance with Section 2308.3.1 shall be provided in the center of each sill plate. The studs at each end of the panel shall have a hold-down device fastened to the foundation with an uplift capacity of not less than 3,500 pounds.



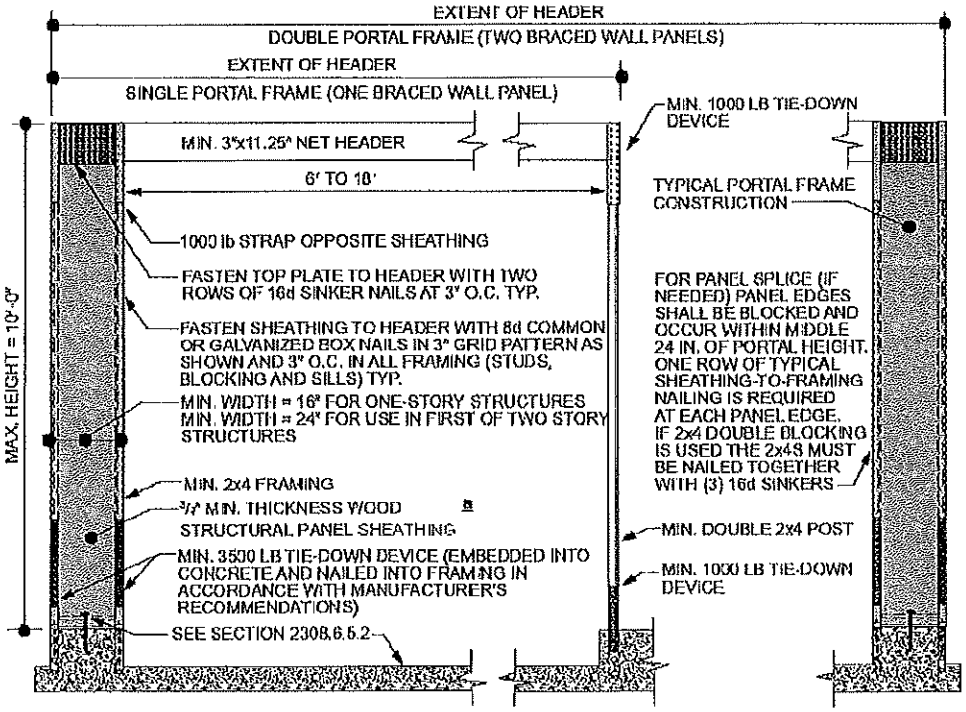
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

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.

FIGURE 2308.6.5.1
ALTERNATE BRACED WALL PANEL (ABW)

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 shall fasten the header to the bearing studs. The bearing studs shall also have a hold-down device fastened to the foundation with an uplift capacity of not less than 1,000 pounds. The hold-down devices shall be an embedded strap type, installed in accordance with the manufacturer's recommendations. The PFH panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom. Where the continuous foundation is required to have a depth greater than 12 inches, a minimum 12- inch by 12-inch 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 24 inches with the reinforcement required in the continuous foundation located directly under the braced wall line. Where a PFH is installed at the first story of two-story buildings, each panel shall have a length of not less than 24 inches.



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

FIGURE 2308.6.5.2
PORTAL FRAME WITH HOLD-DOWNS (PFH)

GG. Section 2308.6.8.1 of Chapter 23 of the California Building Code is amended to read as follows:

2308.6.8.1 Foundation requirements. Braced wall lines shall be supported by continuous foundations. [Exception deleted.]

For structures in Seismic Design Categories D and E, exterior braced wall panels shall be in the same plane vertically with the foundation or the portion of the

structure containing the offset shall be designed in accordance with accepted engineering practice and Section 2308.1.1. [Exceptions deleted.]

15.04.040 Amendment of Part 2.5, California Residential Code

A. Section R105.2, Building, of Chapter 1 of the California Residential Code is hereby amended to read as follows:

Building

1. One-story detached accessory building provided the floor area does not exceed 120 square feet, three feet clear from a building or property line and conforming to the zoning regulations of the Gardena Municipal Code.
2. [deleted]
3. [deleted]
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
5. Patio Slabs, Walkways and Sidewalks on private property.
6. Painting, papering, floor and wall tiling – excluding showers, carpeting, cabinets, counter tops not containing plumbing or electrical, and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches from the exterior wall, do not require additional support, and are two or more feet from property lines.
10. Decks not exceeding 200 square feet in area, that are not more than 30 inches above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4.

B. Section R301.1.3.2 of Chapter 3 of the California Residential Code is amended to read as follows:

R301.1.3.2 Woodframe structures.

The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of wood frame construction more than one story in height or with a basement located in Seismic Design Category D_0, D_1, D_2 or E. Notwithstanding other sections of law, the law establishing these provisions is found in Business and Professions Code Section 5537 and 6737.1.

C. Table R301.2(1) of Chapter 3 of the California Residential Code is amended to read as follows; all footnotes are deleted:

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

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY[f]	*amended*			*Amended*	*Amended*	*Amended*	AIR FREEZING INDEX[l]	MEAN ANNUAL TEMP[j]
	Speed[d] (mph)	Topographic effects[k]		Weathering[a]	Frost line Depth[b]	Termite[c]					
Zero	85	No	D_2 or E	Negligible	12-24"	Very Heavy	43	No	See Exhibit B	0	60

D. Items 1, 3 and 5 of Section R301.2.2.2.5 of Chapter 3 of the California Residential Code are amended to read as follows:

1. Where 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. [Exceptions deleted.]

3. When the end of a braced wall panel occurs over an opening in the wall below. [Exceptions deleted]

5. Where portions of a floor level are vertically offset. [Exceptions deleted]

E. Section R301.2.2.3.8 is added to Chapter 3 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 California Building Code and ASCE 7, except where the component is positively attached to the structure and flexible connections are provided between the component and associated ductwork, piping, and conduit; and either:

1. The component weighs 400 lb or less and has a center of mass located 4 ft or less above the supporting structure; or

2. The component weighs 20 lb or less or, in the case of a distributed system, 5 lb/ft or less.

F. Section R313.1 of Chapter 3 of the California Residential Code is deleted and a new Section R313.1 is added to read as follows:

R313.1 Townhouse automatic fire sprinklers systems. An automatic residential fire sprinkler system installed in Townhouses as follows:
New buildings: An automatic sprinkler system shall be installed throughout all new buildings.
Existing buildings: An automatic sprinkler system shall be installed throughout when the building area exceeds 3,600 square feet and when one of the following conditions exists:

1. When an addition is 50% or more of the existing building area, as defined in Section 502.1, within a two year period; or
2. An addition when the existing building is already provided with automatic sprinklers; or
3. When an existing Group R occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

G. Section R313.2 of Chapter 3 of the California Residential Code is deleted and a new Section R313.2 is added to read as follows:

R313.2 One- and two-family dwellings automatic fire sprinklers systems. An automatic residential fire sprinkler system installed in one and two family dwellings as follows:
New buildings: An automatic sprinkler system shall be installed throughout all new buildings.
Existing buildings: An automatic sprinkler system shall be installed throughout when the building area exceeds 3,600 square feet and when one of the following conditions exists:

1. When an addition is 50% or more of the existing building area, as defined in Section 502.1, within a two year period; or
2. An addition when the existing building is already provided with automatic sprinklers; or
3. When an existing Group R Occupancy is being substantially renovated, and where the scope of the renovation is such that the Building Code Official determines that the complexity of installing a sprinkler system would be similar as in a new building.

H. Section R403.1.2 of Chapter 4 of the California Residential Code is amended to read as follows:

R403.1.2 Continuous footing in Seismic Design Categories D_0, D_1 and D_2 and E. Exterior walls of buildings located in Seismic Design Categories D_0, D_1 and D_2 and E shall be supported by continuous solid or fully grouted masonry or concrete footings. All required interior braced wall panels in buildings located in Seismic Design Categories D_0, D_1 and D_2 and E with plan dimensions greater than 50 feet shall be supported by continuous solid or fully grouted masonry or concrete footings in accordance with Section R403.1.3.4. [Exceptions deleted.]

I. Section R403.1.3 of Chapter 4 of the California Residential Code is modified by deleting the exception for masonry stem walls.

J. Section R403.1.5 of Chapter 4 of the California Residential Code is amended to read as follows:

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall not have a slope exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footings will exceed one unit vertical in 10 units horizontal (10-percent slope). For structures located in Seismic Design Categories D_0, D_1 and D_2 and E, stepped footings shall be reinforced with four No. 4 rebars minimum. Two bars shall be place at the top and bottom of the footings as shown in Figure R403.1.5.

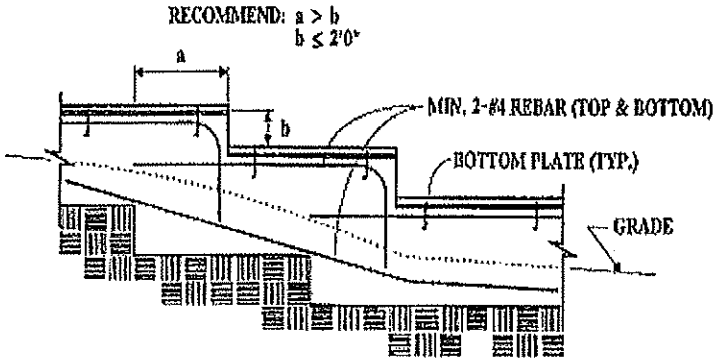


FIGURE R403.1.5
STEPPED FOOTING

K. Section R404.2 of Chapter 4 of the California Residential Code and all subsections thereto are deleted.

L. Section R408.2 of Chapter 4 of the California Residential Code is amended to read as follows; the exception remains:

R408.2 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than one square foot for each 150 square feet of under-floor area. One ventilation opening shall be within three feet of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following materials provided that the least dimension of the covering shall not exceed 1/8 inch:

1. Perforated sheet metal plates not less than 0.070 inch thick.
2. Expanded sheet metal plates not less than 0.047 inch thick.
3. Cast-iron grill or grating.

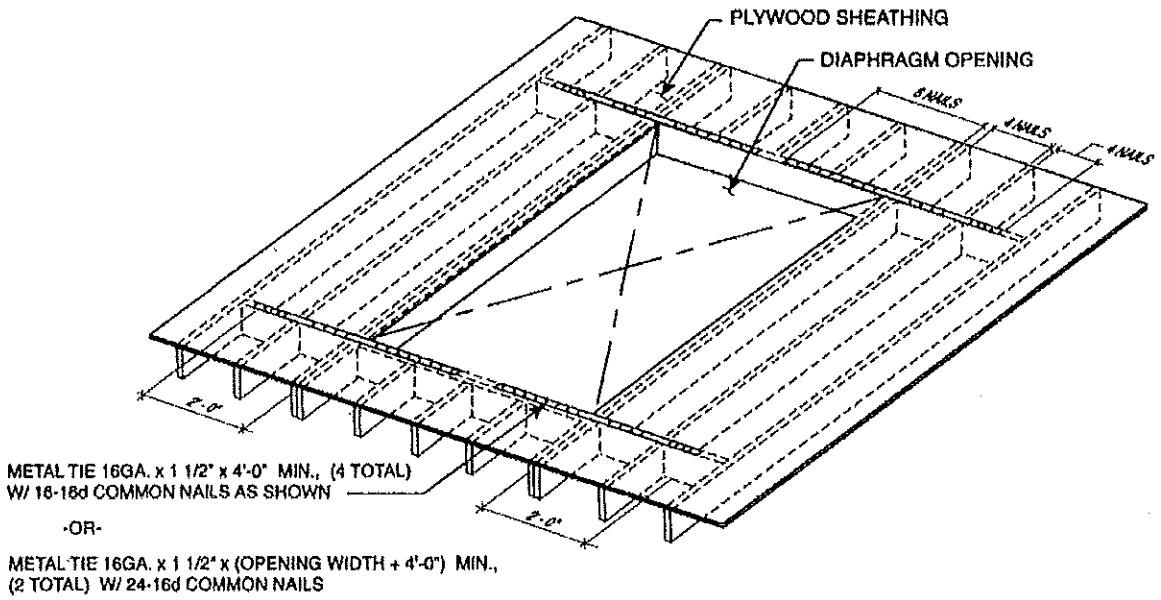
4. Extruded load-bearing brick vents.
5. Hardware cloth of 0.035 inch wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension not exceeding 1/8 inch.

M. Section R501.1 of Chapter 5 of the California Residential Code is amended to read as follows:

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

N. Section R503.2.4 and Figure R503.2.4 are added to Chapter of the California Residential Code 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 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 (16 galvanized gage) by 1.5 inches 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.
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 35 and 36 of Table R602.3(1) of Chapter 6 of the California Residential Code are amended by adding a reference to new footnote i to read as follows:

TABLE 602.3(1)
FASTENING SCHEDULE—continued

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
	Floor		
24	2″ subfloor to joist or girder	3-16d box (3½″ × 0.135″); or 2-16d common (3½″ × 0.162″)	Blind and face nail
25	2″ planks (plank & beam—floor & roof)	3-16d box (3½″ × 0.135″); or 2-16d common (3½″ × 0.162″)	At each bearing, face nail
26	Band or rim joist to joist	3-16d common (3½″ × 0.162″) 4-10 box (3″ × 0.128″), or 4-3″ × 0.131″ nails;	End nail
27	Built-up girders and beams, 2-inch lumber layers	20d common (4″ × 0.192″); or	Nail each layer as follows: 32″ o.c. at top and bottom and staggered.
		10d box (3″ × 0.128″); or 3″ × 0.131″ nails	24″ o.c. face nail at top and bottom staggered on opposite sides
		And: 2-20d common (4″ × 0.192″); or 3-10d box (3″ × 0.128″); or 3-3″ × 0.131″ nails	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	4-16d box (3½″ × 0.135″); or 3-16d common (3½″ × 0.162″); or 4-10d box (3″ × 0.128″); or 4-3″ × 0.131″ nails	At each joist or rafter, face nail
29	Bridging to joist	2-10d (3″ × 0.128″)	Each end, toe nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING OF FASTENERS	
			Edges (inches)[h]	Intermediate supports[c, e] (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing [see Table R602.3(3) for wood structural panel *exterior* wall sheathing to wall framing]			
30	3/8″ – 1/2″	6d common (2″ × 0.113″) nail (subfloor, wall)[i] 8d common (2½″ × 0.131″) nail (roof)	6	12[f]
31	19/32″ – 1″	8d common nail (2½″ × 0.131″)	6	12[f]
32	1⅛″ – 1¼″	10d common (3″ × 0.148″) nail;	6	12
	Other wall sheathing[g]			
33	½″ structural cellulosic fiberboard sheathing	1½″ galvanized roofing nail, 7/16″ head diameter,	3	6
34	25/32″ structural cellulosic fiberboard sheathing	1¾″ galvanized roofing nail, 7/16″ head diameter,	3	6
35[i]	½″ gypsum sheathing[d]	1½″ galvanized roofing nail; staple galvanized, 1½″ long; 1¼″ screws, Type W or S	7	7
36[i]	5/8″ gypsum sheathing[d]	1¾″ galvanized roofing nail; staple galvanized, 1⅝″ long; 1⅝″ screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
37	¾″ and less	6d deformed (2″ × 0.120″) nail; or 8d common (2½″ × 0.131″) nail	6	12
38	7/8″ – 1″	8d common (2½″ × 0.131″) nail; or 8d deformed (2½″ × 0.120″) nail	6	12
39	1⅛″ – 1¼″	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.

TABLE R602.3(1)—continued
FASTENING SCHEDULE

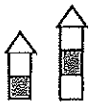
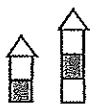
a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch 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. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 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.
g. 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.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at 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.
i. 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.
j. Use of staples in braced wall panels shall be prohibited in Seismic Design Category D_0, D_1, or D_2.

P. Footnote "b" of Table R602.3(2) of Chapter 6 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 D_0, D_1 and D_2 and E.

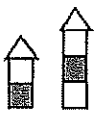
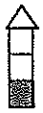
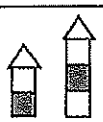
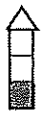
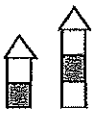
Q. Table R602.10.3(3) of Chapter 6 of the California Residential Code is amended to read as follows:

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

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

(continued)

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

• SOIL CLASS D[b] • WALL HEIGHT = 10 FEET • 10 PSF FLOOR DEAD LOAD • 15 PSF ROOF/CEILING DEAD LOAD • BRACED WALL LINE SPACING ≤ 25 FEET			MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE[a]				
Seismic Design Category	Story Location	Braced Wall Line Length (feet)[c]	Method LIB[d]	Method GB[f]	Methods DWB, SFB, PBS, PCP, HPS, CS-SFB[e,f]	Method WSP	Methods CS-WSP, CS-G
D_1		10	NP	~~3.0~~ 6.0	~~3.0~~ 6.0	2.0	1.7
		20	NP	~~6.0~~ 12.0	~~6.0~~ 12.0	4.0	3.4
		30	NP	~~9.0~~ 18.0	~~9.0~~ 18.0	6.0	5.1
		40	NP	~~12.0~~ 24.0	~~12.0~~ 24.0	8.0	6.8
		50	NP	~~15.0~~ 30.0	~~15.0~~ 30.0	10.0	8.5
		10	NP	~~6.0~~ NP	~~6.0~~ NP	4.5	3.8
		20	NP	~~12.0~~ NP	~~12.0~~ NP	9.0	7.7
		30	NP	~~18.0~~ NP	~~18.0~~ NP	13.5	11.5
		40	NP	~~24.0~~ NP	~~24.0~~ NP	18.0	15.3
		50	NP	~~30.0~~ NP	~~30.0~~ NP	22.5	19.1
		10	NP	~~8.5~~ NP	~~8.5~~ NP	6.0	5.1
		20	NP	~~17.0~~ NP	~~17.0~~ NP	12.0	10.2
		30	NP	~~25.5~~ NP	~~25.5~~ NP	18.0	15.3
		40	NP	~~34.0~~ NP	~~34.0~~ NP	24.0	20.4
		50	NP	~~42.6~~ NP	~~42.6~~ NP	30.0	25.5
D_1		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	~~42.6~~ NP	~~42.6~~ NP	30.0	25.5
D_2		10	NP	~~4.0~~ 8.0	~~1.0~~ 8.0	2.5	2.1
		20	NP	~~8.0~~ 16.0	~~8.0~~ 16.0	5.0	4.3
		30	NP	~~12.0~~ 24.0	~~12.0~~ 24.0	7.5	6.4
		40	NP	~~16.0~~ 32.0	~~16.0~~ 32.0	10.0	8.5
		50	NP	~~20.0~~ 40.0	~~20.0~~ 40.0	12.5	10.6
		10	NP	~~7.5~~ NP	~~7.5~~ NP	5.5	4.7
		20	NP	~~15.0~~ NP	~~15.0~~ NP	11.0	9.4
		30	NP	~~22.5~~ NP	~~22.5~~ NP	16.5	14.0
		40	NP	~~30.0~~ NP	~~30.0~~ NP	22.0	18.7
		50	NP	~~37.5~~ NP	~~37.5~~ NP	27.5	23.4
		10	NP	NP	NP	NP	NP
		20	NP	NP	NP	NP	NP
		30	NP	NP	NP	NP	NP
		40	NP	NP	NP	NP	NP
		50	NP	NP	NP	NP	NP
	Cripple wall below one- or two-story dwelling	10	NP	NP	NP	7.5	6.4
		20	NP	NP	NP	15.0	12.8
		30	NP	NP	NP	22.5	19.1
		40	NP	NP	NP	30.0	25.5
		50	NP	NP	NP	37.5	31.9

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_{ds} values associated with the seismic design categories shall be permitted when a site-specific S_{ds} value is determined in accordance with Section 16.13.3 of the *International Building Code*.

c. Where the braced wall line length is greater than 50 feet, braced wall lines shall be permitted to be divided into shorter segments having lengths of 50 feet or less, and the amount of bracing within each segment shall be in accordance with this table.

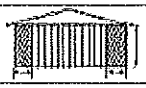
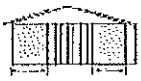
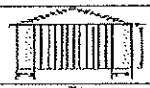
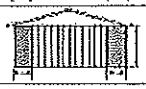
d. Method LIB shall have gypsum board fastened to not less than one side with nails or screws in accordance with Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed 8 inches.

e. Method CS-SFB does not apply in Seismic Design Categories D_0, D_1 and D_2.

f. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1 or D_2. Methods DWB, SFB, PBS, and HPS are not permitted in SDC D_0, D_1 or D_2.

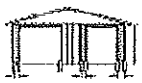
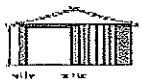
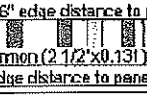
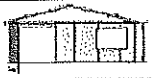
R. Table R602.10.4 of Chapter 6 of the California Residential Code is amended to read as follows:

TABLE R602.10.4
BRACING METHODS [1]

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 (2½" long x 0.113" dia.) nails	Wood: per stud and top and bottom plates
				Metal strap: per manufacturer	Metal: per manufacturer
	DWB Diagonal wood boards	¾"(1" nominal) for maximum 24" stud spacing		2-8d (2½" long × 0.113" dia.) nails or 2 - 1¾" long staples	Per stud
	WSP Wood structural panel (See Section R604)	~~3/8"~~ 15/32"	8d common (2 1/2"x0.131) nails ~~Exterior sheathing per Table R602.3(3)~~ ~~6" edge distance to panel edge~~ 8d common (2 1/2"x0.131) nails ~~Interior sheathing per Table R602.3(1) or R602.3(2)~~ ~~6" edge distance to panel edge~~		6" edges 12" field ~~Varies by fastener~~ 6" edges 12" field
	BV-WSP[f] Wood Structural Panels with Stone or Masonry Veneer (See Section R602.10.6.5)	7/16"	See Figure R602.10.6.5	8d common (2½" × 0.131) nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts
	SFB Structural fiberboard sheathing	½" or 25/32" for maximum 16" stud spacing		1½" long × 0.12" dia. (for ½" thick sheathing) 1¾" long × 0.12" dia. (for 25/32" thick sheathing) galvanized roofing nails or 8d common (2½" long × 0.131" dia.) nails	3" edges 6" field
	GB Gypsum board	½"		Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7" edges (including top and bottom plates) 7" field
				Nails or screws per Table R702.3.5 for interior locations	
	PBS Particleboard sheathing (See Section R605)	5/8" or ½" for maximum 16" stud spacing		For ½", 6d common (2" long × 0.113" dia.) nails For ½", 8d common (2½" long × 0.131" dia.) nails	3" edges 6" field
	PCP Portland cement plaster	See Section R703.6 for maximum 16" stud spacing		1½" long, 11 gage, 7/16" dia. head nails or ⅞" long, 16 gage staples [g]	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 1½" penetration into studs	4" edges 8" field
	ABW Alternate braced wall	⅜"		See Section R602.10.6.1	See Section R602.10.6.1

(continued)

TABLE R602.10.4—continued
BRACING METHODS [1]

METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA[2]	
				Fasteners	Spacing
Intermittent Bracing Methods	**PFH** Portal frame with hold-downs	~~$^{7}/_{8}$"~~		See Section R602.10.6.2	See Section R602.10.6.2
	PFG Portal frame at garage	~~$^{7}/_{16}$"~~		See Section R602.10.6.3	See Section R602.10.6.3
Continuous Sheathing Methods	**CS-WSP** Continuously sheathed wood structural panel	~~$^{7}/_{8}$"~~ 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 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[3,4] Continuously sheathed wood structural panel adjacent to garage openings	~~$^{7}/_{8}$"~~ 15/32"		See Method CS-WSP	See Method CS-WSP
	CS-PF Continuously sheathed portal frame	~~$^{7}/_{16}$"~~ 15/32"		See Section R602.10.6.4	See Section R602.10.6.4
	CS-SFB[4] Continuously sheathed structural fiberboard	$^{1}/_{2}$" or $^{25}/_{32}$" for maximum 16" stud spacing		$1^{1}/_{2}$" long × 0.12" dia. (for $^{1}/_{2}$" thick sheathing) $1^{3}/_{4}$" long × 0.12" dia. (for $^{25}/_{32}$" thick sheathing) galvanized roofing nails or 8d common ($2^{1}/_{2}$" long × 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/m^2, 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, D_0, D_1 and D_2.

b. Applies to panels next to garage door opening where supporting gable end wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D_0, D_1 and D_2, roof covering dead load shall not exceed 3 psf.

c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R602.5(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 D_0, D_1 and D_2.

e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D_0 through D_2 only.

f. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1, or D_2. Methods LIB, DWB, SFB, PBS, HPS, and PFG are not permitted in SDC D_0, D_1, or D_2.

g. Use of staples in braced wall panels shall be prohibited in SDC D_0, D_1, or D_2.

S. Figure R602.10.6.1 of Chapter 6 of the California Residential Code is amended to read as follows:

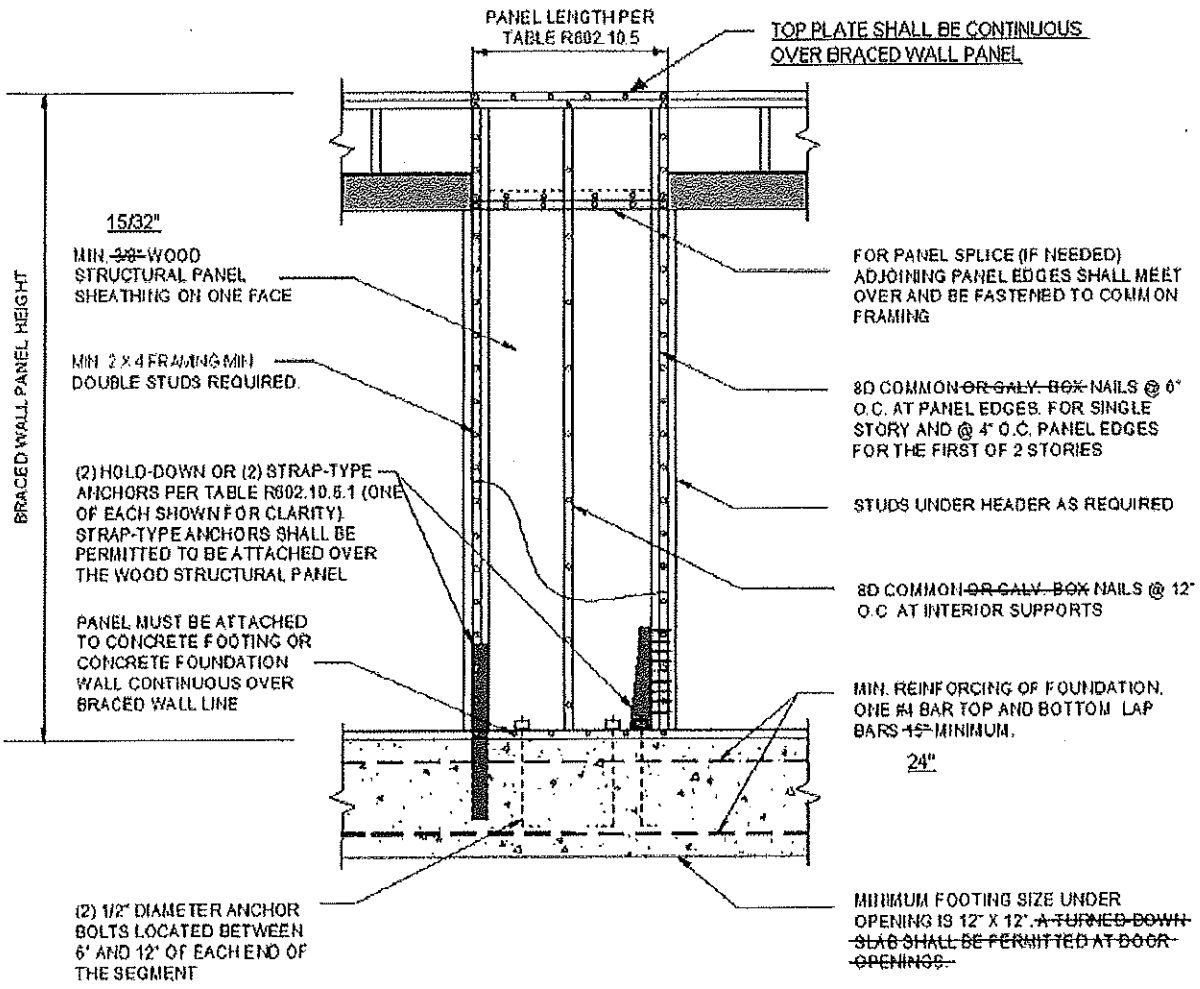
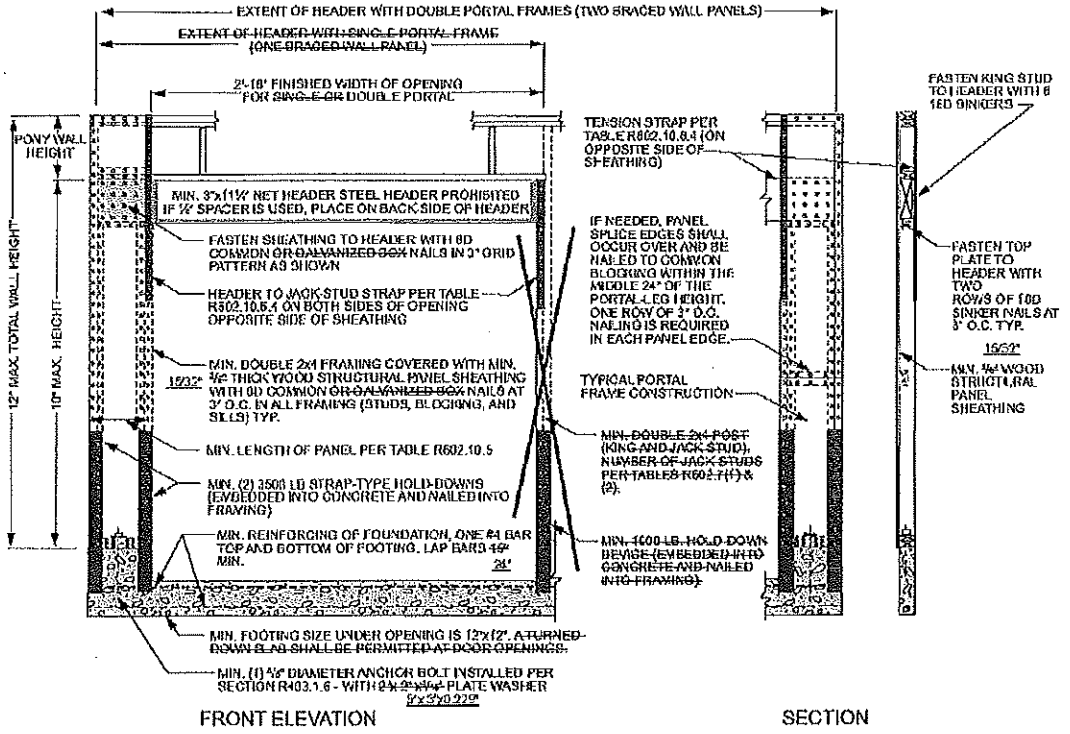


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL

T. Figure R602.10.6.2 of Chapter 6 of the California Residential Code is amended to read as follows:



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

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

U. Table R602.10.5 of Chapter 6 of the California Residential Code is 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) Wall Height					CONTRIBUTING LENGTH (Inches)
		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, ultimate design wind speed < 140 mph	28	32	34	38	42	48
	SDC D_0, D_1 and D_2, ultimate design wind speed < 140 mph	32	32	34	NP	NP	
PFH	Supporting roof only	~~16~~ 24	~~16~~ 24	~~16~~ 24	~~18[c]~~ 24[c]	~~20[c]~~ 24[c]	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	SDC A, B and C	16	18	20	22[e]	24[e]	1.5 × Actual[b]
	SDC D_0, D_1 and D_2	~~16~~ 24	~~18~~ 24	~~20~~ 24	~~22[e]~~ 24[e]	24[e]	Actual[b]

(continued)

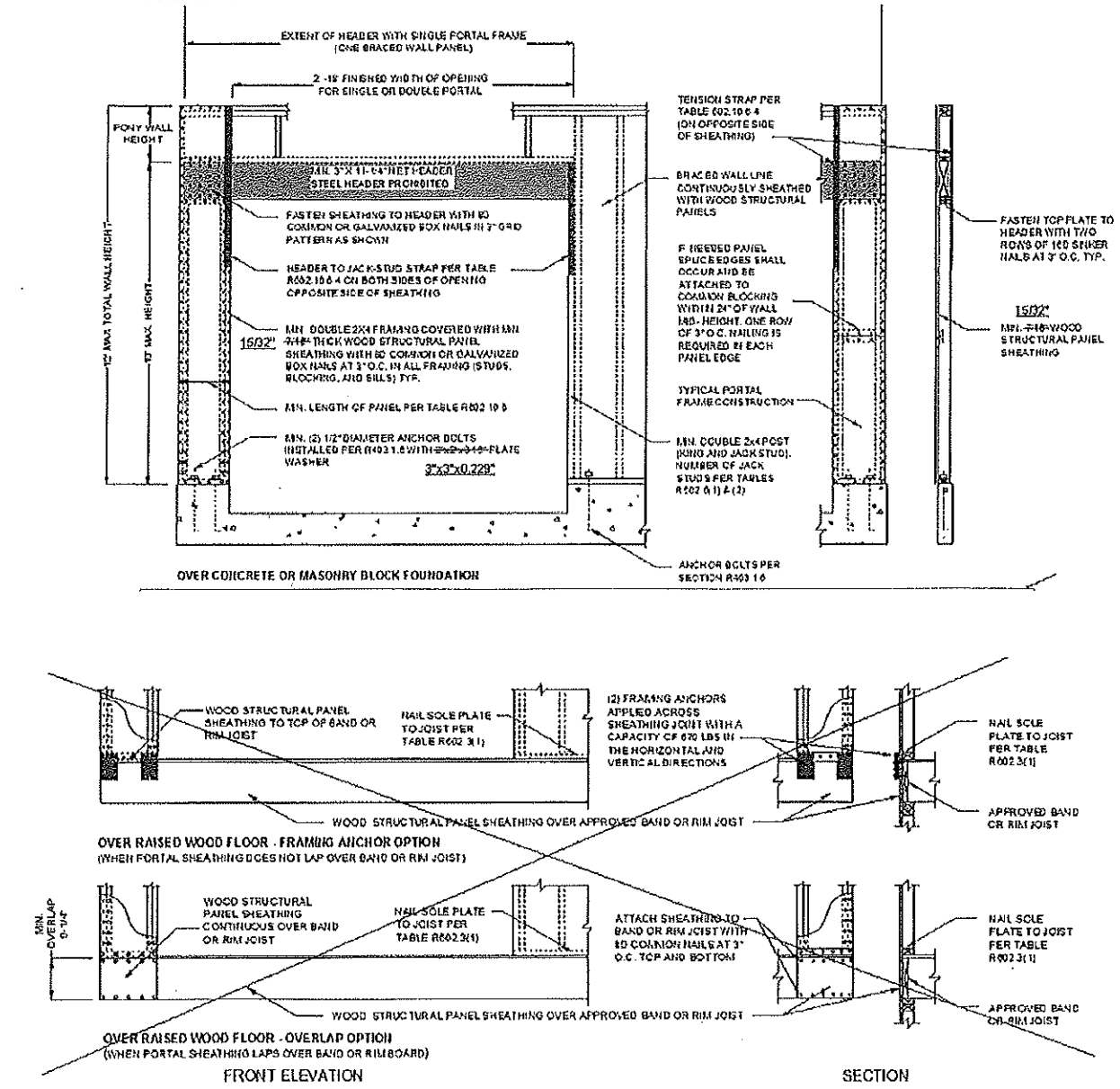
	Adjacent clear opening height (inches)						
CS-WSP, CS-SFB	≤ 64	24	27	30	33	36	Actual[b]
	68	26	27	30	33	36	
	72	27	27	30	33	36	
	76	30	29	30	33	36	
	80	32	30	30	33	36	
	84	35	32	32	33	36	
	88	38	35	33	33	36	
	92	43	37	35	35	36	
	96	48	41	38	36	36	
	100	—	44	40	38	38	
	104	—	49	43	40	39	
	108	—	54	46	43	41	
	112	—	—	50	45	43	
	116	—	—	55	48	46	
	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 where it is greater than or equal to the minimum length.
c. Maximum header height for PBH is 10 feet in accordance with Figure R602.10.6.2, but wall height shall be permitted to 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 shall be permitted to 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 shall be permitted to be increased to 12 feet with pony wall.

V. Section R602.10.2.3 of Chapter 6 of the California Residential Code is amended to read as follows:

R602.10.2.3 Minimum number of braced wall panels. Braced wall lines with a length of 16 feet or less shall have a minimum of two braced wall panels of any length or one braced wall panel equal to 48 inches or more. Braced wall lines greater than 16 feet 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 D_0, D_1 and D_2 and E.

W. Figure R602.10.6.4 of Chapter 6 of the California Residential Code is amended to read as follows:



or 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 R606.4.4 of Chapter 6 of the California Residential Code is amended to read as follows:

R606.4.4 Parapet walls. Unreinforced solid masonry parapet walls shall not be used.

Y. Section R606.12.2.2.3 of Chapter 6 of the California Residential Code is 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. Horizontal reinforcement shall be provided within 16 inches 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, Vertical reinforcement shall be within 8 inches of the ends of masonry walls.

Z. Exception of Section R602.3.2 and Table R602.3.2 of Chapter 6 of the California Residential Code is amended to read as follows:

In Seismic Design Category D_0, D_1 and D_2 and E, a single top plate shall not be used.

AA. Table R602.3.2 of Chapter 6 of the California Residential Code is deleted.

BB. Section R803.2.4 is added to Chapter 8 of the California Residential Code to read as follows:

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

CC. Section R806.1 of Chapter 8 of the California Residential Code to read as follows:

R806.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch minimum and 1/8 inch maximum. Ventilation openings having a least dimension larger than 1/4 inch shall be provided with corrosion resistant wire cloth screening, hardware cloth or similar non-combustible material with openings having a least dimension of 1/16 inch minimum and 1/8 inch maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required openings shall open directly to the outside air.

DD. Section R902.1 of Chapter 9 of the California Residential Code is amended to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class B minimum roofing shall

be installed for all new structures, additions and replacement roofing. Class B minimum roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108. Where less than 50 percent of the roof covering is replaced within any one-year period, the new roof covering may be Class B minimum.

EE. CHAPTER 10 CHIMNEYS AND FIREPLACES of the 2016 Edition of the California Residential Code is deleted and a new Chapter 10 is added to read as follows:

In accordance with SCAQMD's Rule 445:

Beginning March 9, 2009, permanent indoor and outdoor wood-burning devices (such as fireplaces and stoves) cannot be installed in *new developments*. However, open-hearth fireplaces with gas or alcohol fuel based log sets or other popular design features that do not use wood -- such as flames in river rock or broken glass -- are allowed.

As of September 2008, permanent indoor and outdoor wood-burning devices can only be sold or installed in existing homes and businesses if it meets one of these cleaner options:

Dedicated gaseous-fueled fireplace;
U.S. EPA certified fireplace insert or stove;
Pellet-fueled wood-burning heater; or
Masonry heater (not an open-hearth wood-burning fireplace).

FF. Section AJ104 of APPENDIX J (EXISTING BUILDINGS AND STRUCTURES) of the California Residential Code is amended to read as follows:

AJ104 Replacement windows. When replacing an existing window, the replacement window shall comply with the requirements of CRC section R310 and the 2016 CA Energy Code.

GG. Section A0103.3 of APPENDIX O of the California Residential Code is amended to read as follows:

A0103.3 Vehicular gates or other barriers across required fire apparatus access roads. The installation of gates or other barriers across a required fire apparatus access road shall comply with the requirements set forth in the 2016 California Fire Code Section 503.6 and have approved key boxes.

HH. The definition of "Swimming Pool" in Section AV100.1 of APPENDIX V of the California Residential Code is amended to read as follows:

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

II. Section AV100.3 is hereby amended by adding a section 6 as follows:

6. If such lot or premises upon which such pool is located is vacant or unoccupied, all gates or doors opening into the area where such pool is located shall be kept securely locked at all times during such vacancy or non-occupancy, whether such pool is empty or filled.

15.04.050 Amendment of Part 6, California Energy Code

A. Section 110.10(a)(1) is hereby amended to read as follows:

1. **Single-family residences.** Single-family residences shall comply with the requirements of Section 110.10(b) through 110.10(e).

15.04.060 Amendment of Part 11, California Green Building Standards Code

A. 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 California Green Building Standards Code are amended to read as follows:

A4.106.5 Cool roof for reduction of heat island effect. All roofing materials for buildings in Gardena shall comply with this section:

Exceptions:

1. Roof constructions that have a thermal mass over the roof membrane including areas of vegetated (green) roofs, weighing at least 25 lbs/sf.

2. Roof areas covered by building integrated solar photovoltaic panels and building integrated solar thermal panels.

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	75
> 2:12	~~10 15~~	0.20	0.75	16

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~~	~~0.65~~0.68	85	~~78~~82
> 2:12	~~2, 4, 6 15~~	~~0.23~~0.28	85	~~20~~27

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	~~9, 10, 11, 13, 14, 15~~	~~0.55~~0.63	0.75	~~64~~75
> 2:12	~~2 15~~	0.20	0.75	16

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~~	~~0.65~~0.68	~~0.75~~0.85	~~78~~82
> 2:12	~~2 15~~	~~0.23~~0.28	~~0.75~~0.85	~~20~~27

B. Section A4.303.4 of the California Green Building Standards Code is amended to read as follows:

A4.303.4 Non-water supplied urinals. Non-water supplied urinals are installed throughout the scope of the permit or comply with Sections 1101.1 thru 1101.8 of the California Civil Code, whichever is the most restrictive. Where approved, hybrid urinals, as defined in Chapter 2, shall be considered waterless urinals.

C. Section A4.407.1 of the California Green Building Standards Code is 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 other state codes.

SECTION 3. Chapters 15.20 (Uniform Housing Code) and 15.24 (Abatement of Dangerous Buildings) of the Gardena Municipal Code are hereby repealed.

SECTION 4. A new Chapter 15.20 is hereby added to the Gardena Municipal Code to read as follows:

15.20
INTERNATIONAL PROPERTY MAINTENANCE CODE

15.20.010 Adoption of the 2015 International Property Maintenance Code.

Subject to the amendments set forth herein, the 2015 International Property Maintenance Code, including Appendix A, is hereby adopted as the City of Gardena Property Maintenance Code ("PMC"). The provisions of this Code are an alternative to other procedures set forth in the Gardena Municipal Code relating to property maintenance.

A. All references to the International Codes shall be to the California Building Standards Codes, as adopted and amended by the City of Gardena.

B. The PMC shall be interpreted so that all responsibilities set forth in the PMC that are attributable to either the owner or the occupant of the premises shall belong to both the owner and the occupant of the premises, unless otherwise required by law.

C. Section 102.3 of Chapter 1 is amended as follows:

102.3 Application of other codes.

In case of conflict with any section of the PMC and the California Building Standards Code, the California Building Standards Code, as adopted and amended by the City of Gardena, shall prevail regardless of any language to the contrary in the PMC.

D. Section 103 is hereby repealed in its entirety and replaced with the following:

SECTION 103
RESPONSIBILITY FOR PROPERTY MAINTENANCE INSPECTION

103.1 Building Official. The Building Official shall serve as the Code Official for purposes of this Code. The Building Official may direct the Building Inspectors or other Code Enforcement Officers of the City to carry out the responsibilities under this Code.

E. Section 107.1 is hereby amended to read as follows:

107.1 Notice to person responsible. Whenever the code official determines that there has been a violation of this code or has grounds to believe that a violation has occurred, notice shall be given in the manner prescribed in Sections 107.2 and 107.3 to the owner(s) and occupant(s) of the property, as well as to any other person the code official determines is responsible for the violation as specified in this code. Notices for condemnation procedures shall also comply with Section 108.3.

F. Sections 111.2 through 111.8 are hereby repealed.

G. The following sections of Chapter 3 are hereby deleted:

1. Section 302.4;
2. Section 302.8;
3. Section 302.9;
4. Section 303.2;
5. Section 304.3; and
6. Section 308.2.2.

H. Section 308.2.1 is hereby amended to read as follows:

308.2.1 Rubbish storage facilities. All rubbish shall be disposed of in approved covered containers.

I. Section 308.3.1 is hereby amended to read as follows:

308.3.1 Garbage facilities. All dwelling units shall be supplied with an approved mechanical food waste grinder, if required when the dwelling unit was constructed or remodeled and an approved leakproof, covered, outside garbage container. All garbage shall be disposed of by one of these two methods.

J. Section 308.3.2 of Chapter 3 is hereby amended to read as follows:

308.3.2 Containers.

The operator of every establishment producing garbage shall at all times cause to be utilized, approved leakproof containers provided with close-fitting covers for the storage of such materials until removed from the premises for disposal.

K. Section 304.14 of Chapter 3 is hereby amended by requiring insect screens 365 days a year.

L. Section 404.5 of Chapter 4 is hereby amended to read as follows:

404.5 Overcrowding. Dwelling units shall not be occupied by more occupants than permitted in accordance with the California State Building Code.

M. Section 602.3 of Chapter 6 is hereby amended by requiring the heat supply to be

furnished 365 days a year.

N. Section 602.4 of Chapter 6 is hereby amended to read as follows:

602.4 Occupiable work spaces.

Indoor occupiable work spaces shall be supplied with heating 365 days a year to maintain a minimum temperature of 68 degrees Fahrenheit during the period the spaces are occupied.

Exceptions:
1. Processing, storage and operation areas that require cooling or special temperature conditions.
2. Areas in which persons are primarily engaged in vigorous physical activities.

SECTION 5. Chapter 15.30 is hereby added to the Gardena Municipal Code to read as follows:

15.30
UNIFORM BUILDING SECURITY CODE

15.30.010 Adoption of the 1997 Uniform Building Security Code

The 1997 Uniform Building Security Code is adopted as the City of Gardena Building Security Code.

SECTION 6. Section 8.08.020 of the Gardena Municipal Code is hereby amended to read as follows:

8.08.020 Los Angeles County Fire Code version.
Pursuant to Section 8.08.010, which requires the city to adopt the latest version of the Los Angeles County Fire Code by reference, the version of the Los Angeles County Fire Code for the city shall be the version of Title 32 of the Los Angeles County Code as set forth in Ordinance No. 2017-003, adopted by the Los Angeles County Board of Supervisors on January 24, 2017.

SECTION 7. Penalties.

A. Persons who shall violate a provision of the Los Angeles County Fire Code adopted by reference in the Gardena Municipal Code, or shall fail to comply with any of the requirements thereof, or who shall erect, install, alter, repair, or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor unless such violation is declared to be an infraction by Chapter 82 of the Fire Code, punishable by a fine of not more than $1,000 or by imprisonment not exceeding six months, or both such fine and imprisonment. Each day that a violation continues after due notice has

been served shall be deemed a separate offense. For the purposes of this section, a forfeiture of bail shall be equivalent to a conviction.

SECTION 8. CEQA Compliance. The adoption of this Ordinance is exempt from CEQA pursuant to CEQA Guidelines section 15061(c)(3) provides that a project is exempt from CEQA when it is covered by the general rule that CEQA only applies to projects which have the potential for causing a significant effect on the environment and does not apply where it can be seen with certainty that there is no possibility of a significant effect. This Ordinance adopts the California Building Standards Code with local amendments as authorized by State law. The California Building Standards Code already applies by default in the City of Gardena. The local amendments will not create any significant effects. Additionally, the Ordinance adopts other standard code relating to the construction and maintenance of structures within the City. These Codes protect the public by establishing rules and regulations relating to construction and maintenance of structures and premises and will not create any significant effects. The adoption is exempt from the provisions of CEQA and staff shall file a Notice of Exemption with the County Clerk.

SECTION 9. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this ordinance, or any part thereof is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portion of this ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase be declared unconstitutional.

SECTION 10. Certification. The City Clerk shall certify to the passage of this ordinance and shall cause the same to be entered in the book of original ordinances of said City; shall make a minute passage and adoption thereof in the records of the meeting at which time the same is passed and adopted; and shall, within fifteen (15) days after the passage and adoption thereof, cause a summary of the ordinance to be published as required by law.

SECTION 11. Effective Date. This ordinance shall become effective on the thirty-first day after adoption.

Passed, approved, and adopted this 27th day of March, 2018.

Tasha Cerda
TASHA CERDA, Mayor

ATTEST:

Mina Semenza
MINA SEMENZA, City Clerk

APPROVED AS TO FORM:

PETER L. WALLIN, City Attorney

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss:
CITY OF GARDENA)

I, MINA SEMENZA, City Clerk of the City of Gardena, do hereby certify that the whole number of members of the City Council of said City is five; that the foregoing Ordinance being **Ordinance No. 1791** was duly passed and adopted by the City Council of said City of Gardena, approved and signed by the Mayor of said City, and attested by the City Clerk, all at a meeting of said City Council held on the **27th** day of **March, 2018,** and that the same was so passed and adopted by the following roll call vote:

AYES: MAYOR PRO TEM MEDINA, COUNCIL MEMBERS KASKANIAN, HENDERSON, AND TANAKA AND MAYOR CERDA

NOES: NONE

ABSTAIN: NONE

Becky Romero
for City Clerk of the City of Gardena, California

(SEAL)