

ORDINANCE NO. 184692

An ordinance amending Chapter IX of the Los Angeles Municipal Code to incorporate by reference certain portions of the 2015 International Building Code and the 2016 Edition of the California Building Code and to make local administrative, climatic, geologic or topographical changes.

**WHEREAS**, California Health and Safety Code Sections 17958.5 and 17958.7 authorize the City Council to make reasonably necessary changes or modifications to the provisions of the California Building Standards Code (Title 24, California Code of Regulations) upon finding these changes are reasonably necessary due to local conditions; and

**WHEREAS**, in support of the following modifications and changes, the City Council hereby expressly finds that the following amendments and modifications to the California Building Standards Code are reasonably necessary due to local climatic, geological or topographical conditions.

**NOW THEREFORE,**

**THE PEOPLE OF THE CITY OF LOS ANGELES  
DO ORDAIN AS FOLLOWS:**

Section 1. Subsection 91.101.1 of Section 91.101, Division 1, Article 1, Chapter IX of the Los Angeles Municipal Code (LAMC) is amended to read as follows:

This article shall be known as the Los Angeles Building Code or Building Code or LABC, a portion of the Los Angeles Municipal Code (LAMC), and wherever the word Code is used in this article, it shall mean the Los Angeles Building Code. Sections of Article 1.5 of Chapter IX of the LAMC shall collectively be known as the Los Angeles Residential Code or LARC. The provisions of the LARC for one- and two- family dwellings shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures. In addition to the LARC, appropriate sections of Divisions 1, 11A, 11B, 17, 31, 31B, 33, 63, 67, 70, 71, 72, 81, 89, 92, 93 and 96 of the LABC shall also be applicable to one- and two-family dwellings and townhouses unless stated otherwise.

The Los Angeles Building Code and the Los Angeles Residential Code adopt by indicated reference portions of the 2016 California Building Code (CBC) or the 2016 California Residential Code (CRC) located at Title 24 of the California Code of Regulations (CCR).

**EXCEPTION:** Live/work units complying with the requirements of CBC Section 419 shall be permitted to be built as one- and two-family dwellings or townhouses. Fire suppression required by CBC Section 419.5 when constructed under the CRC for one- and two-family dwellings shall conform to CBC Section 903.3.1.3.

Sec. 2. The second paragraph of Subsection 91.101.4, of Section 91.101, Division 1, Article 1, Chapter IX of the LAMC is amended to read as follows:

For additions, alterations, moving and maintenance of buildings and structures, see Article 1.2, Chapter IX of the Los Angeles Municipal Code. For temporary buildings and structures, see CBC Section 3103.

Sec. 3. Exception 1 to Subsection 91.108.1 of Section 91.108, Division 1, Article 1, Chapter IX of the LAMC is amended to read as follows:

1. When a permit is obtained for reroofing in compliance with LAMC Section 91.1511, the Department may waive inspections provided the following persons certify that the materials used comply with LAMC Section 91.1511 and work is performed by:

A. A licensed contractor; or

B. The owner of the property who either did the work or used employees of the owner to do the work pursuant to California Business and Professions Code Section 7044.

Sec. 4. The definitions of California Building Code and Unreinforced Masonry Bearing Wall Building in Section 91.202, Division 2, Article 1, Chapter IX of the LAMC are amended to read as follows:

**CALIFORNIA BUILDING CODE (CBC).** Is Part 2, Title 24 of the California Code of Regulations as adopted by the California Building Standards Commission.

**UNREINFORCED MASONRY BEARING WALL BUILDING** is a building with at least one unreinforced masonry bearing wall as the term is defined in the California Existing Building Code, at Title 24 of the California Code of Regulations.

Sec. 5. The first sentence of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1207 of the CBC is adopted by reference, except CBC Sections 1207.1, is not adopted and in lieu, LAMC Subsections and Subdivisions 91.1207.1, 91.1207.1.2, 91.1207.6, 91.1207.7, 91.1207.8, 91.1207.9, 91.1207.9.1, 91.1207.10, 91.1207.11, 91.1207.12, 91.1207.13, 91.1207.14, 91.1207.14.1, 91.1207.14.2, 91.1207.14.3, 91.1207.15.4, 91.1207.16 and 91.1207.17 are added.

Sec. 6. Subsection 91.1207.2 of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is renumbered as Subdivision 91.1207.1.2.

Sec. 7. Subsections 91.1207.3, 91.1207.4, 91.1207.5, 91.1207.6, 91.1207.6.1, 91.1207.7, 91.1207.8, 91.1207.9, 91.1207.10, 91.1207.11, 91.1207.12 and 91.1207.13 of Section 91.1207, Division 12, Article 1, Chapter IX the LAMC are respectively renumbered as Subsections 91.1207.6, 91.1207.7, 91.1207.8, 91.1207.9, 91.1207.9.1, 91.1207.10, 91.1207.11, 91.1207.12, 91.1207.13, 91.1207.14, and 91.1207.16 and 91.1207.17.

Sec. 8. Subsection 91.1207.11.1 of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1207.14.1.

Sec. 9. Subsection 91.1207.11.2 of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1207.14.2.

Sec. 10. Subsection 91.1207.11.3 of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1207.14.3.

Sec. 11. Subsection 91.1207.11.4 of Section 91.1207, Division 12, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1207.15.4.

Sec. 12. Section 91.1300, Division 13, Article 1, Chapter IX of the LAMC is amended to read as follows:

In order to comply with the purpose of this division, buildings shall be designed to comply with the requirements of Part 6, Title 24 of the California Code of Regulations, referred to as the California Energy Code.

Sec. 13. Section 91.1510, Division 15, Article 1, Chapter IX of the LAMC, including its subsections and table, is deleted in its entirety.

Sec. 14. A new Section 91.1511 is added to Division 15, Article 1, Chapter IX of the LAMC to read as follows:

**SEC. 91.1511. REROOFING.**

Section 1511 of the CBC is adopted by reference, except CBC Sections 1511.3.1 and 1511.4 are not adopted and, in lieu, LAMC Subdivision 91.1511.3.1 and Subsection 91.1511.4 are added.

Sec. 15. A new Subsection 91.1511.3.1 is added to Section 91.1511, Division 15, Article 1, Chapter IX of the LAMC to read as follows:

**91.1511.3.1. Roof Recover.** The installation of a new roof covering over an existing roof covering shall be permitted where any of the following conditions occur:

1. Where the new roof covering is installed in accordance with the roof covering manufacturer's approved instructions.

2. Complete and separate roofing systems, such as standing-seam metal roof panel systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.

3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear off of existing roof coverings.

Sec. 16. A new Subsection 91.1511.4 with a Table 1511.1, is added to Section 91.1511, Division 15, Article 1, Chapter IX of the LAMC to read as follows:

**91.1511.4. Roof Recovering.** Roof covering may be applied over existing roofing in accordance to LAMC Table 1511.1.

**TABLE 1511.1  
ALLOWABLE REROOFS OVER EXISTING ROOFING**

EXISTING ROOFING	NEW OVERLAY ROOFING					
	BUILT UP	ASPHALT SHINGLE	TILE ROOF	METAL ROOF	MODIFIED BITUMEN	SPRAY POLY-URETHANE FORM
Built Up	Yes	Yes (2:12)	Yes (2.5:12)	Yes	Yes	Yes
Asphalt Shingle	NP	Yes	Yes (2.5:12)	Yes	Yes	NP
Asphalt over Asphalt	NP	Yes	Yes	Yes	Yes	NP
Tile Roof	NP	NP	NP	NP	NP	NP
Metal Roof	NP	NP	NP	Yes	NP	NP
Modified Bitumen	Yes	Yes	Yes (2.5:12)	Yes	Yes	NP

NP = Not Permitted.

**Note:** (Minimum Roof Slope)

Sec. 17. Paragraph 1.2 of Subdivision 1 of Subsection 91.1612.5 of Section 91.1612, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

1.2. For fully enclosed areas below the design flood elevation where provisions to allow for the automatic entry and exit of floodwaters do not meet the minimum requirements in Section 2.7.2.1 of American Society of Civil Engineers (ASCE) 24, construction documents shall include a statement that the design will provide for equalization of hydrostatic flood forces in accordance with Section 2.7.2.2 of ASCE 24.

Sec. 18. The first sentence of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1613 of the CBC is adopted by reference, and LAMC Subsections and Subdivisions 91.1613.5.2 through 91.1613.10.5 are added or amended to read as follows:

Sec. 19. Subsection 91.1613.5.3 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1613.5.2.

Sec. 20. Subsection 91.1613.5.4 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1613.5.3.

Sec. 21. Subsection 91.1613.5.5 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1613.5.4.

Sec. 22. The equation in newly numbered Subsection 91.1613.5.4 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

$$\delta_M = C_d \delta_{max}$$

Sec. 23. Subsection 91.1613.5.6 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1613.5.5.

Sec. 24. The first paragraph and Exception of Subdivision 12.12.5 of the newly numbered Subsection 91.1613.5.5 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

For structures assigned to Seismic Design Category D, E or F, every structural component not included in the seismic force-resisting system in the direction under consideration shall be designed to be adequate for the gravity load effects and the seismic forces resulting from displacement to the design story drift ( $\Delta$ ) as determined in accordance with ASCE 7 Section 12.8.6 (see also ASCE 7 Section 12.12.1).

**EXCEPTION:** Reinforced concrete frame members not designed as part of the seismic force-resisting system shall comply with Section 21.11 of ACI 318.

Sec. 25. A new Subsection 91.1613.5.6 is added to Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC to read as follows:

**91.1613.5.6.** Modify ASCE 7 Section 12.8.1.3 as follows:

**12.8.1.3. Maximum  $S_{DS}$  Value in Determination of  $D_s$  and  $E_v$ .** The value of  $C_s$  and  $E_v$  are permitted to be calculated using a value of  $S_{DS}$  equal to 1.0 but not less than 70% of  $S_{DS}$  as defined in ASCE 7 Section 11.4.4, provided that all of the following criteria are met:

1. The structure does not have irregularities, as defined in ASCE 7 Section 12.3.2;
2. The structure does not exceed five stories above the lower of the base or grade plane as defined in ASCE 7 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 ASCE 7 Section 12.8.2;
4. The structure meets the requirements necessary for the redundancy factor  $\rho$ , to be permitted to be taken as 1.0, in accordance with ASCE 7 Section 12.3.4.2;
5. The site soil properties are not classified as Site Classes E or F, as defined in ASCE 7 Section 11.4.2; and
6. The structure is classified as Risk Category I or II, as defined in ASCE 7 Section 1.5.1.

Sec. 26. Subsection 91.1613.6 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is deleted in its entirety.

Sec. 27. Subsections 91.1613.8.1.2.1, 91.1613.8.1.2.2, and 91.1613.8.1.2.3 of Section 91.1613, Division 16, Article 1, Chapter IX the LAMC are respectively renumbered as Subsections 91.1613.8.1.2.2, 91.1613.8.1.2.3, and 91.1613.8.1.2.4.

Sec. 28. A new Subsection 91.1613.8.1.2.1 is added to Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC to read as follows:

**91.1613.8.1.2.1. General.** The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

Sec. 29. The first sentence of the first unnumbered paragraph of the newly numbered Subsection 91.1613.8.1.2.4 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

All sprinkler heads (drops), except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile.

Sec. 30. The first sentence of the second unnumbered paragraph of the newly numbered Subsection 91.1613.8.1.2.4 of Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC is amended to read as follows:

Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with CBC Section 714.

Sec. 31. New Subsections 91.1613.10, 91.1613.10.1, 91.1613.10.2, 91.1613.10.3, 91.1613.10.4 and 91.1613.10.5 are added to Section 91.1613, Division 16, Article 1, Chapter IX of the LAMC to read as follows:

#### **91.1613.10. Earthquake Recording Instrumentation.**

**91.1613.10.1. Applicability.** The requirements of this section shall apply to buildings for which permits were issued after July 1, 1965.

**91.1613.10.2. General.** Every new building over six stories in height with an aggregate floor area of 60,000 square feet (5574 m<sup>2</sup>) or more and every new building over ten stories in height regardless of the floor area shall be equipped with at least three approved recording accelerographs.

**EXCEPTION:** A building selected by the State of California as part of its Strong Motion Instrumentation Program (California Public Resources Code Section 2700 et seq.) need not comply with this section until it ceases to be part of the program.

All new buildings that are designed using the non-linear response history procedure of "Seismic Response History Procedures" of Chapter 16 of ASCE 7 shall be equipped with a structural monitoring system in accordance with standards established by the Superintendent of Building.

**91.1613.10.3. Maintenance.** Maintenance and service of the instruments shall be provided by the owner of the building subject to the approval of the Superintendent of

Building. Data produced by the instruments shall be made available to the Superintendent of Building on request.

Maintenance and service of the instruments shall be performed annually and shall be performed only by an approved testing agency. The owner shall file with the Department a written report from an approved testing agency certifying that each instrument has been serviced and is in proper working condition. This report shall be submitted when the instruments are installed and annually thereafter. Each instrument shall have affixed to it an externally visible tag specifying the date of the last maintenance or service and the printed name and address of the testing agency performing the service.

**91.1613.10.4. Location.** For new buildings requiring accelerographs in accordance with LAMC Subdivision 91.1613.10.2, the instruments shall be located in the basement, mid-height and near the top of the building. Each instrument shall be located so that access is maintained at all times and is unobstructed by room contents. A sign stating "MAINTAIN CLEAR ACCESS TO THIS INSTRUMENT" in 1 inch (25.4 mm) block letters shall be posed in a conspicuous location at the instrument.

**91.1613.10.5. Instrumentation of Existing Buildings.** All owners of existing structures selected by the Department shall provide accessible space for the installation of appropriate earthquake-recording instruments. Locations of the instruments shall be determined by the engineer of record and approved by the Department. The owners shall make arrangements with the Department to provide, maintain and service the instruments as required above. Data shall be the property of the Department, but copies of individual records shall be made available to the public on request with the payment of an appropriate fee.

All legally existing instruments shall be maintained and serviced in proper working condition. Each instrument shall be maintained and serviced as specified by LAMC Subdivision 91.1613.10.3 and shall be provided with a sign as required by LAMC Subdivision 91.1613.10.4.

Sec. 32. The title of Section 91.1700, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

**SEC. 91.1700. GENERAL.**

Sec. 33. A new first sentence is added to Section 91.1702, Division 17, Article 1, Chapter IX of the LAMC to read as follows:

Section 1702 of the CBC is adopted.

Sec. 34. The first sentence of Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1703 of the CBC is adopted by reference, except CBC Sections 1703.1, 1703.1.1, 1703.2, 1703.3, 1703.4, 1703.4.1, 1703.4.2, 1703.6 and 1703.6.2 are not adopted and, in lieu, LAMC Subsections 91.1703.1, 91.1703.1.1, 91.1703.2, 91.1703.3, 91.1703.4, 91.1703.4.1, 91.1703.4.2, 91.1703.6 and 91.1703.6.2 are added.

Sec. 35. A new Subsection 91.1703.1.1 is added to Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC to read as follows:

**91.1703.1.1. Independence.** An approved agency shall be objective, competent and independent from the contractor responsible for the work being inspected. The agency shall also disclose to the Superintendent of Building and the registered design professional in responsible charge possible conflicts of interest so that objectivity can be confirmed.

Sec. 36. Subsection 91.1703.2, of Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Any material, appliance, equipment, system or method of construction meeting the requirements of this Code shall be approved in writing after satisfactory completion of the required tests and submission of required test reports pursuant to LAMC Sections 98.0501 and 98.0502.

Sec. 37. Subsection 91.1703.4 of Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Specific information consisting of test reports conducted by an approved testing agency in accordance with standards referenced in Division 35, Article 1, Chapter IX of the LAMC, or other information as necessary, shall be provided for the Superintendent of Building to determine that the material meets the applicable Code requirements, including LAMC Sections 98.0501 and 98.0502.

Sec. 38. The last sentence of Subsection 91.1703.4.1 of Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

The costs, reports and investigations required under these provisions shall be paid by the permit applicant as required by LAMC Sections 98.0501, 98.0502 and 98.0503.

Sec. 39. Subsection 91.1703.4.2 of Section 91.1703, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this Code, shall consist of valid research reports from approved sources as required in LAMC Sections 98.0501 and 98.0502.

Sec. 40. The first sentence of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1704 of the CBC is adopted by reference, except that CBC Sections 1704.2, 1704.2.1, 1704.2.3, 1704.2.4, 1704.2.5, 1704.2.5.1, 1704.2.5.2, 1704.3, 1704.3.1, 1704.4, 1704.7, 1704.8 and 1704.9 are not adopted; and, in lieu, LAMC Subsections, Subdivisions and Paragraphs 91.1704.1, 91.1704.1.1, 91.1704.1.2, 91.1704.1.3, 91.1704.1.4, 91.1704.1.5, 91.1704.1.6, 91.1704.2, 91.1704.2.1, 91.1704.2.1.1, 91.1704.2.1.2, 91.1704.2.1.3, 91.1704.2.3, 91.1704.2.4, 91.1704.2.5, 91.1704.2.5.1, 91.1704.2.5.2, 91.1704.3, 91.1704.3.1, 91.1704.4, 91.1704.5, 91.1704.6, 91.1704.6.1 and 91.1704.6.2 are added or amended, to read as follows:

Sec. 41. A new Subsection 91.1704.2.5 is added to Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC to read as follows:

**91.1704.2.5. Inspection of Fabricated Items.** Where fabrication of structural, load-bearing or lateral load-resisting members or assemblies is being conducted on the premises of a fabricators shop, deputy inspections of the fabricated items shall be performed during fabrication when approved by the Superintendent of Building.

Sec. 42. Subsection 91.1704.4.1 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1704.1.

Sec. 43. Subsection 91.1704.4.1.1 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1704.1.1.

Sec. 44. Subsection 91.1704.4.1.2 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as 91.1704.1.2

Sec. 45. Subsection 91.1704.4.1.3 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as 91.1704.1.3

Sec. 46. Subsection 91.1704.4.1.4 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as 91.1704.1.4

Sec. 47. Subsection 91.1704.4.1.5 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as 91.1704.1.5

Sec. 48. Subsection 91.1704.4.1.6 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as 91.1704.1.6.

Sec. 49. Subsection 91.1704.5 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1704.6 and the first sentence is amended to read as follows:

Where required by the provisions of CBC Sections 1704.6.1 or 1704.6.2, the owner shall employ the registered design professional in responsible charge for the structural design, or another registered design professional designated by the registered design professional in responsible charge for the structural design to perform structural observations as designed in CBC Section 1702.

Sec. 50. Subsection 91.1704.5.1 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1704.6.1

Sec. 51. Subsection 91.1704.5.2 of Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1704.6.2.

Sec. 52. A new Subsection 91.1704.5 is added to Section 91.1704, Division 17, Article 1, Chapter IX of the LAMC to read as follows:

**91.1704.5.** Section 1704.5 of the CBC is adopted in its entirety.

Sec. 53. The first sentence of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1705 of the CBC is adopted by reference, except CBC Sections 1705.1.1, 1705.3, 1705.3.1, 1705.6, 1705.7, 1705.8, 1705.11.1, 1705.11.4, 1705.12.2, 1705.16.2 and 1705.17 are not adopted; and, in lieu, LAMC Subdivisions and Subsections 91.1705.1.1, 91.1705.1.2, 91.1705.1.3, 91.1705.1.4, 91.1705.1.5, 91.1705.1.6, 91.1705.1.7, 91.1705.1.8, 91.1705.1.9, 91.1705.1.10, 91.1705.1.11, 91.1705.1.12, 91.1705.1.13, 91.1705.2.2, 91.1705.2.2.2, 91.1705.3, 91.1705.3.1, 91.1705.3.1.2, 91.1705.3.2, 91.1705.6, 91.1705.6.1, 91.1705.7, 91.1705.8, 91.1705.12.1, 91.1705.12.1.1.1, 91.1705.13.1, 91.1705.17.2 and 91.1705.18 are added.

Sec. 54. Subsection 91.1705.2.2.1.1 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.2.2.

Sec. 55. Subsection 91.1705.2.2.1.3 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.1.12.

Sec. 56. Subsection 91.1705.2.2.1.3.1 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is deleted.

Sec. 57. Subsection 91.1705.2.2.1.3.2 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.1.13.

Sec. 58. Subsection 91.1705.2.2.2 of Section 91.1705, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.2.4.2.2.

Sec. 59. Subsections 91.1705.2.2.1.2 and 91.1705.3.1 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC are respectively renumbered as Subsections 91.1705.3.1 and 91.1705.3.1.2.

Sec. 60. The title of Subsection 91.1705.3.2 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

**Material Tests.**

Sec. 61. Subsection 91.1705.11.1 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.12.1.

Sec. 62. Subsection 91.1705.11.1.1 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.12.1.1.1.

Sec. 63. Subsection 91.1705.11.4 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is deleted in its entirety.

Sec. 64. Subsection 91.1705.12.2 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.13.1.

Sec. 65. Subsection 91.1705.16.2 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.17.2.

Sec. 66. Subsection 91.1705.17 of Section 91.1705, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1705.18.

Sec. 67. The first sentence of Section 91.1707, Division 17, Article 1, Chapter IX of the LAMC is amended to read as follows:

Section 1707 of the CBC is adopted by reference, except CBC Section 1707.1 is not adopted and, in lieu, LAMC Subsections 91.1707.1 and 91.1707.2 are added.

Sec. 68. Section 91.1708, Division 17, Article 1, Chapter IX of the LAMC is deleted.

Sec. 69. Subsection 91.1708.1 of Section 91.1708, Division 17, Article 1, Chapter IX of the Los Angeles Municipal Code is renumbered as Subsection 91.1707.2 of Section 91.1707, Division 17, Article 1, Chapter IX of the Los Angeles Municipal Code.

Sec. 70. Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Section 91.1710.

Sec. 71. Subsection 91.1712.1 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.1.

Sec. 72. Subsection 91.1712.2 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.2.

Sec. 73. Subsection 91.1712.3 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.3.

Sec. 74. Subsection 91.1712.3.1 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.3.1.

Sec. 75. Subsection 91.1712.3.2 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.3.2.

Sec. 76. Subsection 91.1712.3.3 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.3.3.

Sec. 77. Subsection 91.1712.3.4 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.3.4.

Sec. 78. Subsection 91.1712.4 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.

Sec. 79. Subsection 91.1712.4.1 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.1.

Sec. 80. Subsection 91.1712.4.2 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.2.

Sec. 81. Subsection 91.1712.4.3 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.3.

Sec. 82. Subsection 91.1712.4.4 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.4.

Sec. 83. Subsection 91.1712.4.5 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.5.

Sec. 84. Subsection 91.1712.4.6 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.6.

Sec. 85. Subsection 91.1712.4.7 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.7.

Sec. 86. Subsection 91.1712.4.8 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.4.8.

Sec. 87. Subsection 91.1712.5 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.5.

Sec. 88. Subsection 91.1712.5.1 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.5.1.

Sec. 89. Subsection 91.1712.5.2 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.5.2.

Sec. 90. Subsection 91.1712.6 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.6.

Sec. 91. Subsection 91.1712.6.1 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.6.1.

Sec. 92. Subsection 91.1712.6.2 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.6.2.

Sec. 93. Subsection 91.1712.7 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.7.

Sec. 94. Subsection 91.1712.8 of Section 91.1712, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1710.8.

Sec. 95. Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Section 91.1711.

Sec. 96. Subsection 91.1713.1 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.1.

Sec. 97. Subsection 91.1713.1.1 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.1.1.

Sec. 98. Subsection 91.1713.1.2 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.1.2.

Sec. 99. Subsection 91.1713.1.3 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.1.3.

Sec. 100. Subsection 91.1713.2 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.2.

Sec. 101. Subsection 91.1713.3 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.3.

Sec. 102. Subsection 91.1713.4 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.4.

Sec. 103. Subsection 91.1713.5 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.5.

Sec. 104. Subsection 91.1713.6 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.

Sec. 105. Subsection 91.1713.6.1 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.1.

Sec. 106. Subsection 91.1713.6.2 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.2.

Sec. 107. Subsection 91.1713.6.3 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.3.

Sec. 108. Subsection 91.1713.6.4 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.4.

Sec. 109. Subsection 91.1713.6.5 of Section 91.1713, Division 17, Article 1, Chapter IX of the LAMC is renumbered as Subsection 91.1711.6.5.

Sec. 110. The first sentence of Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC is amended to read as follows:

Chapter 19 of the CBC is adopted by reference, except that CBC Sections 1905.1, 1905.1.8, 1906.1, 1908.1, 1908.1.2, 1908.1.8 and 1909.4 are not adopted; and LAMC Subsections and Subdivisions 91.1905.1, 91.1905.1.7, 91.1905.1.8, 91.1905.1.9, 91.1905.1.10, 91.1905.1.11, 91.1905.1.12, 91.1905.1.13 and 91.1906.1 are added.

Sec. 111. Subsection 91.1905.1 of Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC is amended to read as follows:

The text of ACI 318 shall be modified as indicated in CBC Sections 1905.1 through 1905.1.12 and as modified in this Code.

Sec. 112. A new Subsection 91.1905.1.7 is added to Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC to read as follows:

**91.1905.1.7. 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) Concrete used for fill with a minimum cement content of two (2) sacks of Portland cement per cubic yard.

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

(c) Plain concrete footings supporting walls are permitted provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than .002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings with at least two continuous longitudinal reinforcement bars not smaller than No. 4 are permitted to have a total area of less than .002 times the gross cross-sectional area of the footing.

Sec. 113. A new Subsection 91.1905.1.9 is added to Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC to read as follows:

**91.1905.1.9. ACI 318, Section 18.7.5.** Modify ACI 318, Section 18.7.5 by adding Section 18.7.5.8 to read as follows:

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

Sec. 114. Subsection 91.1905.1.10 of Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.1905.1.10. ACI 318, Section 18.7.5.** Modify ACI 318, Section 18.7.5, by adding Section 18.7.5.9 to read as follows:

18.7.5.9 – At any section where the design strength,  $P_n$ , of the column is less than the sum of the shears  $V_e$  computed in accordance with ACI 318 Sections

18.6.5.1 and 18.7.6.1.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Section 18.7.5.1 through 18.7.5.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For determination of the design strength,  $P_n$ , of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

Sec. 115. Subsection 91.1905.1.11 of Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.1905.1.11. ACI 318, Section 18.10.4.** Modify ACI 318, Section 18.10.4, by adding Section 18.10.4.6 to read 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 strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318, Section 18.14.

Sec. 116. Subsection 91.1905.1.12 of Section 91.1900, Division 19, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.1905.1.12. ACI 318, Section 18.12.6.** Modify ACI 318, Section 18.12.6, by adding Section 18.12.6.2 to read as follows:

18.12.6.2 – Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or  $6d_b$  thick, where  $d_b$  is the diameter of the largest reinforcement in the topping slab. [CBC Section 1913.3.6]

Sec. 117. The last sentence of the first unnumbered paragraph of Subsection 91.2113.3 of Section 91.2113, Division 21, Article 1, Chapter IX of the LAMC is amended to read as follows:

In structures assigned to Seismic Design Category E or F, masonry and concrete chimneys shall be reinforced in accordance with the requirements of CBC Sections 2101 through 2108 and anchored in accordance with CBC Section 2113.4.

Sec. 118. The first unnumbered paragraph of Subsection 91.2204.1, of Section 91.2204, Division 22, Article 1, Chapter IX of the LAMC is amended to read as follows:

The details of design, workmanship and technique for welding, inspection of welding and qualification of welding operators shall conform to the requirements listed in CBC Sections 2205, 2206, 2207, 2208, 2209, 2210 and 2211. Special inspection of welding shall be provided where required by CBC Section 1705.

Sec. 119. A new Section 91.3004 is added to Division 30, Article 1, Chapter IX of the LAMC to read as follows:

**SEC. 91.3004. CONVEYING SYSTEMS.**

CBC Section 3004 is adopted by reference, except CBC Section 3004.4 is not adopted.

Sec. 120. A new first paragraph is added to Section 91.3007, Division 30, Article 1, Chapter IX of the LAMC to read as follows:

CBC Section 3007 is adopted by reference, CBC Section 3007.8.1 is not adopted and LAMC Subsections and Subdivisions 91.3007.1, 91.3007.2, 91.3007.8.1 and 91.3007.9.1 are added.

Sec. 121. A new Subsection 91.3007.8.1 is added to Section 91.3007, Division 30, Article 1, Chapter IX of the LAMC to read as follows:

**91.3007.8.1. Protection of wiring or cables.** Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power control signals, communication with the car, lighting, heating, air conditioning, ventilation and fire-detecting systems to fire service access elevators shall be protected by construction having a fire-resistance rating of not less than 2 hours, shall be circuit integrity cable having a fire-resistance rating of not less than 2 hours, or shall be protected by a listed electrical protective system having a fire-resistance rating of not less than 2 hours.

Sec. 122. Subsection 91.3112.2 of Section 91.3112, Division 31, Article 1, Chapter IX of the LAMC is amended to read as follows:

The following word and term shall, for the purposes of Division 31, Article 1, Chapter IX of the Los Angeles Municipal Code, have the meaning shown herein.

**Patio Covers.** One-story structures not exceeding 12 feet (3657 mm) in height. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 % of the area below a minimum of 6 feet 8 inches (2013 mm) of each wall, measured from the floor.

Sec. 123. Division 34, Article 1, Chapter IX of the LAMC is deleted in its entirety.

Sec. 124. Subsection (a) of Section 91.6109, Division 61, Article 1, Chapter IX of the LAMC is amended to read as follows:

(a) **Fences.** Every existing swimming pool, fish pond or other body of water, which contains water 18 inches (457.2 mm) or more in depth, shall be enclosed by a fence, the height of which, including gates, shall be not less than 4 1/2 feet (1371.6 mm) above the ground. Gates shall be self-latching with the latch located 4 1/2 feet (1371.6 mm) minimum above the ground. However, for new swimming pools, spas, fish ponds and other bodies of water, the height and construction of the fence and gate shall comply with the requirements of Division 31, Article 1, Chapter IX of the LAMC whichever is more restrictive and provides greater safety.

Sec. 125. The Exceptions to Subsection 91.6201.2 of Section 91.6201, Division 62, Article 1, Chapter IX of the LAMC are amended to read as follows:

**EXCEPTIONS:**

a. Signs not exceeding 20 square feet (1.85 m<sup>2</sup>) in area, place upon the surface of the ground, no part of which extends more than 6 feet 6 inches (1981.2 mm) above the underlying ground, which have no mechanical or moving parts or to which no electricity or other source of illumination or power are attached to or used to illuminate the sign;

b. Boards and signs, not to exceed 6 square feet (.557 m<sup>2</sup>), used exclusively to display official notices issued by any court or public officer in the performance of a public duty or by a private person in giving legal notice;

c. Temporary signs conforming to the requirements of Article 4.4, Chapter I of the Los Angeles Municipal Code which contain political, ideological, or other noncommercial messages.

Sec. 126. Section 91.6703, Division 67, Article 1, Chapter IX of the LAMC is amended to read as follows:

The provisions of this division shall not be applicable to latching or locking devices on exit doors to the extent that the provisions of this division are contrary to the provisions of CBC Section 402.8.8 or CBC Chapter 10, nor shall the regulations of this division be construed to waive any other provision of this Code.

No person shall sell, offer for sale, advertise, display for sale or install any metal bars, grilles, grates, security roll-down shutters or similar devices manufactured or installed to preclude human entry through windows and exterior doors without a label attached to each product, printed in at least ten-point type and that reads as follows: "A building permit is required in most cases for the installation of this product. If this product is installed in a sleeping room, unless excepted by the provisions of CBC Section 1030, the device must be equipped with a quick-release latch operable from inside and the dwelling unit provided with an approved smoke detector."

Sec. 127. Exception 2 of Subsection 91.6709.2 of Section 91.6709. Division 67, Article 1, Chapter IX of the LAMC is amended to read as follows:

2. In other than residential buildings, locks may be key operated on the inside when not prohibited by the provisions of CBC Section 402.8.8 or CBC Chapter 10.

Sec. 128. A new Subsection 91.7006.8.3 is added to Section 91.7006, Division 70, Article 1, Chapter IX of the LAMC to read as follows:

**91.7006.8.3. Baseline Hillside Ordinance.** No grading permit shall be issued for the import or export of earth materials to or from and no grading shall be conducted on any grading site in hillside ordinance areas unless the Building Permit has been approved in compliance with the Baseline Hillside Ordinance.

**EXCEPTION:** The requirements of this section shall not apply to any grading that is determined by the Department to be Remedial Grading as defined in LAMC Section 12.03.

Sec. 129. A new Note 5 is added to Figure F following Subsection 91.7015.7 of Section 91.7015, Division 70, Article 1, Chapter IX of the LAMC to read as follows:

5. Prior to construction of a dispersal wall on slopes steeper than 3:1 (H: V), a geology/soils report shall be submitted to the Department. The geology/soils report shall address the stability of the slope and provide foundation design recommendations for the dispersal wall.

Sec. 130. The first paragraph of Section 91.7105, Division 71, Article 1, Chapter IX of the LAMC is amended to read as follows:

Additions, alterations, repairs, changes of use or changes of occupancy to existing buildings shall comply with the methane mitigation requirements of LAMC Subsections 91.7104.1 and 91.7104.2, when required by Divisions 81 or 82 of Article 1, Chapter IX of the LAMC.

Sec. 131. Subsection 91.8103.2 of Section 91.8103, Division 81, Article 1, Chapter IX of the LAMC is amended to read as follows:

Repair, rehabilitation, alteration and addition shall comply with Article 1.2, Chapter IX of the LAMC.

Sec. 132. Subsection 91.8103.3 of Section 91.8103, Division 81, Article 1, Chapter IX of the LAMC is amended to read as follows:

Buildings classed in Group I Occupancy because of the use or character of the occupancy that are not more than 3 stories in height, that were established prior to March 4, 1972, and that have been continuously operated as that use or character since that time shall comply with Article 1.2, Chapter IX of the LAMC.

Sec. 133. A new Subsection 91.8104.16 is added to Section 91.8104, Division 81, Article 1, Chapter IX of the LAMC to read as follows:

**91.8104.16.** Properties must be free of dead vegetation, shrubs, and trees. In addition, any existing or new irrigation equipment must be maintained and in working order (local and state requirements may apply to watering frequency and consumption).

Sec. 134. Section 91.8110, Division 81, Article 1, Chapter IX of the LAMC is amended to read as follows:

Existing unreinforced masonry bearing wall buildings constructed or under construction prior to October 6, 1933, shall conform to the requirements of Division 88, Article 1, Chapter IX of the LAMC. For other than full compliance to Division 88, Article 1, Chapter IX of the LAMC, all alterations, repairs, additions, Change of Occupancy, change in Class Rating per LAMC Table 88-A, Change in Occupancy Category, and increase in occupant load shall comply with the requirements of Article 1.2, Chapter IX of the LAMC.

Sec. 135. Section 91.8201, Division 82, Article 1, Chapter IX of the LAMC is amended to read as follows:

Every change of occupancy, use and rating classification in any existing building or structure shall conform to the construction requirements for the group occupancy to be housed in the building or structure or for the use to which the building or structure is to be put, as set forth in Article 1.2, Chapter IX of the LAMC and Division 82, Article 1, Chapter IX of the LAMC.

Sec. 136. The first sentence of Subsection 91.8502.1.2 of Section 91.8502, Division 85, Article 1, Chapter IX of the LAMC is amended to read as follows:

Every room below the fourth story where occupants sleep in Joint Living and Work Quarters shall be provided with an emergency escape and rescue window or door that complies with the requirements of CBC Section 1030.

Sec. 137. The last paragraph of Subsection 91.8502.5 of Section 91.8502, Division 85, Article 1, Chapter IX of the LAMC is amended to read as follows:

High-rise buildings shall be provided with a central control station (fire control room) that complies with all the requirements of CBC Section 403.4.6 and LAMC Section 57.508, including the minimum room dimensions of 10 feet (3048 mm).

Sec. 138. The first unnumbered paragraph of Subsection 91.8502.12 of Section 91.8502, Division 85, Article 1, Chapter IX of the LAMC is amended to read as follows:

The conversion of any portion of an Existing Building to a Joint Living and Work Quarters shall be analyzed for 75% of the Design Earthquake Ground motion as defined in CBC Section 1613.2 and as specified in CBC Section 1613.3, but in no event shall there be a reduction in the capacity of the seismic force resisting system where that system provides a greater level of protection than the minimum requirements established by this division.

Sec. 139. The first sentence of Subsection 91.8502.13 of Section 91.8502, Division 85, Article 1, Chapter IX of the LAMC is amended to read as follows:

All electrical systems and installations for a Joint Living and Work Quarters and other alterations in adjoining areas shall be designed in accordance with the Electrical Code, except that the general lighting in the Joint Living and Work Quarters shall be installed based on the unit load of 4.0 volt-amperes per square foot.

Sec. 140. Exception 1 to Subsection 91.8602.8.1 of Section 91.8602, Division 85, Article 1, Chapter IX of the LAMC is amended to read as follows:

1. The provisions of CBC Section 713 which require shaft enclosures need not be complied with, provided the provisions of this section are met.

Sec. 141. The first sentence of Subsection 91.8604.2.3 of Section 91.8604, Division 86, Article 1, Chapter IX of the LAMC is amended to read as follows:

Every opening in a floor shall be enclosed as required by CBC Section 713 for shaft enclosures; provided, however, that existing enclosure walls constructed of wood lath and plaster or equivalent fire-resistive materials and which are in good condition may be accepted in lieu of enclosure wall construction.

Sec. 142. Subsection 91.8604.6.2 of Section 91.8604, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.8604.6.2. Scope.** The provisions of this subsection shall apply to every existing high-rise building for which a building permit was issued prior to July 1, 1974.

**EXCEPTION:** The provisions of this subsection shall not apply to Group R-1 or R-2 Occupancy, as defined in CBC Section 310.1. The provisions of this subsection shall not authorize the modification of existing buildings or portions of the buildings, which provide a greater degree of protection against fire than the minimum requirements established by this subsection.

Sec. 143. Subsection 91.8606.3.4 of Section 91.8606, Division 86, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.8606.3.4.** Lighted exit signs shall meet the requirements of CBC Section 1011.1 and where emergency power is required for Group R-1 and R-2 Occupancies as specified in CBC Section 1011.6.3.

Sec. 144. A new last sentence is added to the second unnumbered paragraph of Subsection 91.8903.2.4 of Section 91.8903, Division 89, Article 1, Chapter IX of the LAMC to read as follows:

Overnight security shall require Department approval to determine the location does not present a safety hazard to overnight security personnel.

Sec. 145. Subdivision 4 of Subsection 91.9406.7.2 of Section 91.9406, Division 91, Article 1, Chapter IX of the LAMC is amended to read as follows:

4. The design lateral forces shall be distributed to lateral force resisting elements of varying heights in accordance with the stiffness of each individual element. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall deflection. Deflections of shear walls may be estimated by CBC Section 2305 and AWC SDPWS Section 4.3.2 or other equivalent methods. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step as an independent shear wall.

Sec. 146. Subsection 91.9406.8 of Section 91.9406, Division 94, Article 1, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.9406.8. Lateral Force Resisting Systems at the Base and Below and Normal to the Downhill-Direction.** Lateral force resisting systems acting normal to the downhill-direction may include steel moment frames and those systems permitted under LAMC Subsection 91.9406.7, provided the drift limitations of LAMC Subdivision 91.9406.6.4 are not exceeded.

Sec. 147. The second paragraph of Section 91.5.101, Division 1, Article 1.5, Chapter IX of the LAMC is amended to read as follows:

The LABC and the LARC adopt by reference portions of the 2016 California Building Code (CBC) or the 2016 California Residential Code (CRC) respectively.

Sec. 148. The first sentence of Subsection 91.5.301.1.4 of Section 91.5.300, Division 3, Article 1.5, Chapter IX of the LAMC is amended to read as follows:

The design and construction of new buildings and additions to existing buildings when constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3% slope) shall comply with LAMC Subsection 91.1613.8.

Sec. 149. Table R301.2 (1) of Subsection 91.5.301.1.4 of Section 91.5.300, Division 3, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

[TABLE R301.2 (1) on next page]

**TABLE R301.2(1)**  
**Climatic and Geographic Design Criteria**

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>r</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>s</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>b</sup>	FLOOD HAZARDS <sup>o</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
	Speed (mph)	Topographic effects <sup>k</sup>	Special wind region <sup>l</sup>	Wind-borne debris zone <sup>m</sup>		Weathering <sup>a</sup>	Frost line depth <sup>b</sup>	Termite <sup>e</sup>					
0	85	No	No	No	D <sub>2</sub> /E	Negligible	12"	Yes	39 ° to	No	See Flood	0	61.1 °

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

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

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

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

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

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

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

g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.

h. In accordance with CRC Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES". Otherwise, the jurisdiction shall fill in this part of the table with "NO".

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

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

k. In accordance with CRC Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES". Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

l. In accordance with CRC Figure R301.2(4)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

m. In accordance with CRC Section R301.2.1.2.1, the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

Sec. 150. Subdivision 7 of Subsection 91.5.301.2.2.2.5 of Section 91.5.300, Division 3, Article 1.5, Chapter IX of the LAMC is amended to read as follows:

7. When stories above-grade are partially or completely braced by wood wall framing in accordance with CRC Section R602 or cold-formed steel wall framing in accordance with CRC Section R603 include masonry or concrete construction;

Sec. 151. Subdivision 91.5.403.1.2 of Section 91.5.400, Division 4, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.5.403.1.2. Continuous Footing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, D<sub>2</sub>.** Exterior walls of buildings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub> 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<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be supported on foundations.

Sec. 152. Subsection 91.5.403.1.3 of Section 91.5.400, Division 4, Article 1.5, Chapter IX of the LAMC is deleted in its entirety.

Sec. 153. A new Subsection 91.5.403.1.3.6 is added to Section 91.5.400, Division 4, Article 1.5, Chapter IX of the LAMC to read as follows:

**91.5.403.1.3.6. Isolated Concrete Footings.** In detached one- and two-family dwellings located in Seismic Design Category A, B or C that are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted in accordance with CRC Section R403.1.3.4.

Sec. 154. Section 91.5.600 of Division 6, Article 1.5, Chapter IX of the LAMC is amended to read as follows:

Chapter 6 of the CRC is hereby adopted by reference with the exceptions, modifications and additions set forth below. Additionally, Section R602.10.9.1 from the 2016 California Building Code is not adopted.

Sec. 155. Table 91.5.602.3(1) of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

[Table 91.5.602.3(1) on next page]

**Table 91.5.602.3(1) - Fastener Schedule for Structural Members**  
 [Table R602.3(1) Fastening Schedule]

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a,b,c</sup>	SPACING AND LOCATION
<b>Roof</b>			
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2 1/2" x 0.113") or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" x 0.128"); or 3-16d common (3 1/2" x 0.162"); or 4-3" x 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) [see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail
5	Collar tie to rafter, face nail or 1 1/4" x 20 ga. ridge strap to rafter	4-10d box (3" x 0.128"); or 3-10d common (3" x 0.148"); or 4-3" x 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3 1/2" x 0.135"); or 3-10d common nails (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss <sup>1</sup>
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3 1/2" x 0.135"); or 3-10d common (3 1/2" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails	Toe nail
		3-16d box (3 1/2" x 0.135"); or 2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	End nail
<b>Wall</b>			
8	Stud to stud (not at braced wall panels)	16d common (3 1/2" x 0.162")	24" o.c. face nail
		10d box (3" x 0.128"); or 3" x 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3 1/2" x 0.135"); or 3" x 0.131" nails	12" o.c. face nail
		16d common (3 1/2" x 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with 1/2" spacer)	16d common (3 1/2" x 0.162")	16" o.c. each edge face nail
		16d box (3 1/2" x 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box (2 1/2" x 0.113"); or 4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128")	Toe nail
12	Top plate to top plate	16d common (3 1/2" x 0.162")	16" o.c. face nail
		10d box (3" x 0.128"); or 3" x 0.131" nails	12" o.c. face nail
13	Double top plate splice for SDCs A-D <sub>2</sub> with seismic braced wall line spacing < 25'	8-16d common (3 1/2" x 0.162"); or 12-16d box (3 1/2" x 0.135"); or 12-10d box (3" x 0.128"); or 12-3" x 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs D <sub>0</sub> , D <sub>1</sub> , or D <sub>2</sub> ; and braced wall line spacing ≥ 25'	12-16d (3 1/2" x 0.135")	

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a,b,c</sup>	SPACING AND LOCATION
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 1/2" x 0.162")	16" o.c. face nail
		16d box (3 1/2" x 0.135"); or 3" x 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3 1/2" x 0.135"); or 2-16d common (3 1/2" x 0.162"); or 4-3" x 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box (2 1/2" x 0.113"); or 3-16d box (3 1/2" x 0.135"); or 4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails	Toe nail
		3-16d box (3 1/2" x 0.135"); or 2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" x 0.128"); or 2-16d common (3 1/2" x 0.162"); or 3-3" x 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples 1 3/4"	Face nail
19	1" x 6" sheathing to each bearing	3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail
20	1" x 8" and wider sheathing to each bearing	3-8d box (2 1/2" x 0.113"); or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3 staples, 1" crown, 16 ga., 1 3/4" long	Face nail
		Wider than 1" x 8" 4-8d box (2 1/2" x 0.113"); or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 4 staples, 1" crown, 16 ga., 1 3/4" long	
<b>Floor</b>			
21	Joist to sill, top plate or girder	4-8d box (2 1/2" x 0.113"); or 3-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2 1/2" x 0.113")	4" o.c. toe nail
		8d common (2 1/2" x 0.131"); or 10d box (3" x 0.128"); or 3" x 0.131" nails	6" o.c. toe nail
23	1" x 6" subfloor or less to each joist	3-8d box (2 1/2" x 0.113"); or 2-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a,b,c</sup>	SPACING AND LOCATION	
<b>Floor</b>				
24	2" subfloor to joist or girder	3-16d box (3 1/2" x 0.135"); or 2-16d common (3 1/2" x 0.162")	Blind and face nail	
25	2" planks (plank & beam—floor & roof)	3-16d box (3 1/2" x 0.135"); or 2-16d common (3 1/2" x 0.162")	At each bearing, face nail	
26	Band or rim joist to joist	3-16d common (3 1/2" x 0.162") 4-10 box (3" x 0.128"), or 4-3" x 0.131" nails; or 4-3" x 14 ga. staples, 7/16" crown	End nail	
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" x 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.	
		10d box (3" x 0.128"); or 3" x 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides	
		And: 2-20d common (4" x 0.192"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails	Face nail at ends and at each splice	
28	Ledger strip supporting joists or rafters	4-16d box (3 1/2" x 0.135"); or 3-16d common (3 1/2" x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails	At each joist or rafter, face nail	
29	Bridging to joist	2-10d (3" x 0.128")	Each end, toe nail	
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER <sup>a,b,c</sup>	SPACING OF FASTENERS	
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" x 0.113") nail (subfloor, wall) <sup>f</sup> 8d common (2 1/2" x 0.131") nail (roof)	6	12 <sup>f</sup>
31	19/32" - 1"	8d common nail (2 1/2" x 0.131")	6	12 <sup>f</sup>
32	1 1/8" - 1 1/4"	10d common (3" x 0.148") nail; or 8d (2 1/2" x 0.131") deformed nail	6	12
<b>Other wall sheathing<sup>g</sup></b>				
33	1/2" structural cellulosic fiberboard sheathing	1 1/2" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 a., 1 1/4" long	3	6
34	25/32" structural cellulosic fiberboard sheathing	1 3/4" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1 1/4" long	3	6
35	1/2" gypsum sheathing <sup>d,i</sup>	1 1/2" galvanized roofing nail; staple galvanized, 1 1/2" long; 1 1/4" screws, Type W or S	7	7
36	5/8" gypsum sheathing <sup>d,i</sup>	1 3/4" galvanized roofing nail; staple galvanized, 1 5/8" long; 1 5/8" screws, Type W or S	7	7
<b>Wood structural panels, combination subfloor underlayment to framing</b>				
37	3/4" and less	6d deformed (2" x 0.120") nail; or 8d common (2 1/2" x 0.131") nail	6	12
38	7/8" - 1"	8d common (2 1/2" x 0.131") nail; or 8d deformed (2 1/2" x 0.120") nail	6	12
39	1 1/8" - 1 1/4"	10d common (3" x 0.148") nail; or 8d deformed (2 1/2" x 0.120") nail	6	12

- 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 (4.87 mm) (20d common nail), 90 ksi for shank diameters larger than 0.142 inch (3.60 mm) but not larger than 0.177 inch (4.49 mm), and 100 ksi for shank diameters of 0.142 inch (3.60 mm) or less.
- b. Staples are 16 gage wire and have a minimum 7/16 inch (11.11 mm) on diameter crown width.
- c. Nails shall be spaced at not more than 6 inches (152.4 mm) on center at all supports where spans are 48 inches (1219.2 mm) or greater.
- d. 4 foot by 8 foot (1219.2 mm x 2438.1 mm) or 4 foot by 9 foot (1219.2 mm x 2743.2 mm) panels shall be applied vertically.
- e. Spacing of fasteners not included in this table shall be based on LAMC Table 91.5.602.3(2).
- f. 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<sub>0</sub>, D<sub>1</sub>, or D<sub>2</sub>.

Sec. 156. Table 91.5.602.3(2) of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

[Table 91.5.602.3(2) on next page]

**Table 91.5.602.3(2)**  
**Alternate Attachments to Table 91.5.602.3(1)**

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION <sup>a,b</sup> OF FASTENER AND LENGTH (inches)	SPACING <sup>c</sup> OF FASTENERS	
		Edges (inches)	Intermediate supports (inches)
<b>Wood structural panels subfloor, roof<sup>g</sup> and wall sheathing to framing and particleboard wall sheathing to framing<sup>i</sup></b>			
Up to 1/2	Staple 15 ga. 1 3/4	4	8
	0.097 - 0.099 Nail 2 1/4	3	6
19/32 and 5/8	Staple 16 ga. 1 3/4	3	6
	0.113 Nail 2	3	6
	Staple 15 and 16 ga. 2	4	8
23/32 and 3/4	0.097 - 0.099 Nail 2 1/4	4	8
	Staple 14 ga. 2	4	8
	Staple 15 ga. 1 3/4	3	6
	0.097 - 0.099 Nail 2 1/4	4	8
1	Staple 16 ga. 2	4	8
	Staple 14 ga. 2 1/4	4	8
	0.113 Nail 2 1/4	3	6
	Staple 15 ga. 2 1/4	4	8
NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION <sup>a,b</sup> OF FASTENER AND LENGTH (inches)	SPACING <sup>c</sup> OF FASTENERS	
		Edges (inches)	Body of panel <sup>d</sup> (inches)
<b>Floor underlayment; plywood-hardboard-particleboard<sup>f</sup>-fiber-cement<sup>h</sup></b>			
<b>Fiber-cement</b>			
1/4	3d, corrosion-resistant, ring shank nails (finished flooring other than tile)	3	6
	Staple 18 ga., 7/8 long, 1/4 crown (finished flooring other than tile)	3	6
	1 1/4 long x .121 shank x .375 head diameter corrosion-resistant (galvanized or stainless steel) roofing nails (for tile finish)	8	8
	1 1/4 long, No. 8 x .375 head diameter, ribbed wafer-head screws (for tile finish)	8	8
<b>Plywood</b>			
1/4 and 5/16	1 1/4 ring or screw shank nail-minimum 12 1/2 ga.,(0.099") shank diameter	3	6
	Staple 18 ga., 7/8, 3/16 crown width	2	5
11/32, 3/8, 15/32, and 1/2	1 1/4 ring or screw shank nail-minimum 12 1/2 ga.,(0.099") shank diameter	6	8 <sup>e</sup>
19/32, 5/8, 23/32 and 3/4	1 1/2 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
<b>Hardboard<sup>f</sup></b>			
0.200	1 1/2 long ring-grooved underlayment nail	6	6
	4d cement-coated sinker nail	6	6
	Staple 18 ga., 7/8 long (plastic coated)	3	6
<b>Particleboard</b>			
1/4	4d ring-grooved underlayment nail	3	6
	Staple 18 ga., 7/8 long, 3/16 crown	3	6
3/8	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/8 long, 3/8 crown	3	6
1/2, 5/8	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 3/8 long, 3/8 crown	3	6

For SI: 1 inch = 25.4 mm.

- a. Nail is a general description and shall be permitted to be T-head, modified round head or round head.
- b. Staples shall have a minimum crown width of  $\frac{7}{16}$ -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<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>.
- c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.
- d. Fasteners shall be placed in a grid pattern throughout the body of the panel.
- e. For 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.
- f. Hardboard underlayment shall conform to CPA/ANSI A135.4
- g. Specified alternate attachments for roof sheathing shall be permitted where the ultimate design wind speed is less than 130 mph. Fasteners attaching wood structural panel roof sheathing to gable end wall framing shall be installed using the spacing listed for panel edges.
- h. Fiber-cement underlayment shall conform to ASTM C1288 or ISO 8336, Category C.

Sec. 157. Subsection 91.5.602.3.2 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**91.5.602.3.2.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and intersections with bearing partitions. End joints in top plates shall be offset at least 24 inches (609.6 mm). Joints in plates need not occur over studs. Plates shall be not less than 2 inches (50.8 mm) nominal thickness and have a width at least equal to the width of the studs.

**EXCEPTION:** In other than Seismic Design Category D<sub>0</sub>, D<sub>1</sub>, or D<sub>2</sub>, a single top plate used as an alternative to a double top plate shall comply with the following:

1. The single top plate shall be tied at the corners, intersecting walls, and at in-line splices in straight wall lines in accordance with LAMC Table 91.5.602.3.2.
2. The rafters or joists are centered over the studs with a tolerance of no more than 1 inch (25 mm).
3. Omission of the top plate is permitted over headers where the headers are adequately tied to adjacent wall sections in accordance with LAMC Table 91.5.602.3.2.

Sec. 158. A new Table 91.5.602.3.2 is added to Subsection 91.5.602.3.2 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC to read as follows:

[Table 91.5.602.3.2 on next page]

**Table 91.5.602.3.2**  
**Single Top-Plate Splice Connection Details**

CONDITION	TOP-PLATE SPLICE LOCATION			
	Corners and intersecting walls		Butt joints in straight walls	
	Splice plate size	Minimum nails each side of joint	Splice plate size	Minimum nails each side of joint
Structures in SDC A-C	3" x 6" x 0.036" galvanized steel plate or equivalent	(6) 8d box (2 <sup>1</sup> / <sub>2</sub> " x 0.113") nails	3' x 12" x 0.036" galvanized steel plate or equivalent	(12) 8d box (2 <sup>1</sup> / <sub>2</sub> " x 0.113") nails

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

Sec. 159. Table 91.5.602.10.5 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is amended in its entirety to read as follows:

[Table 91.5.602.10.5 on next page]

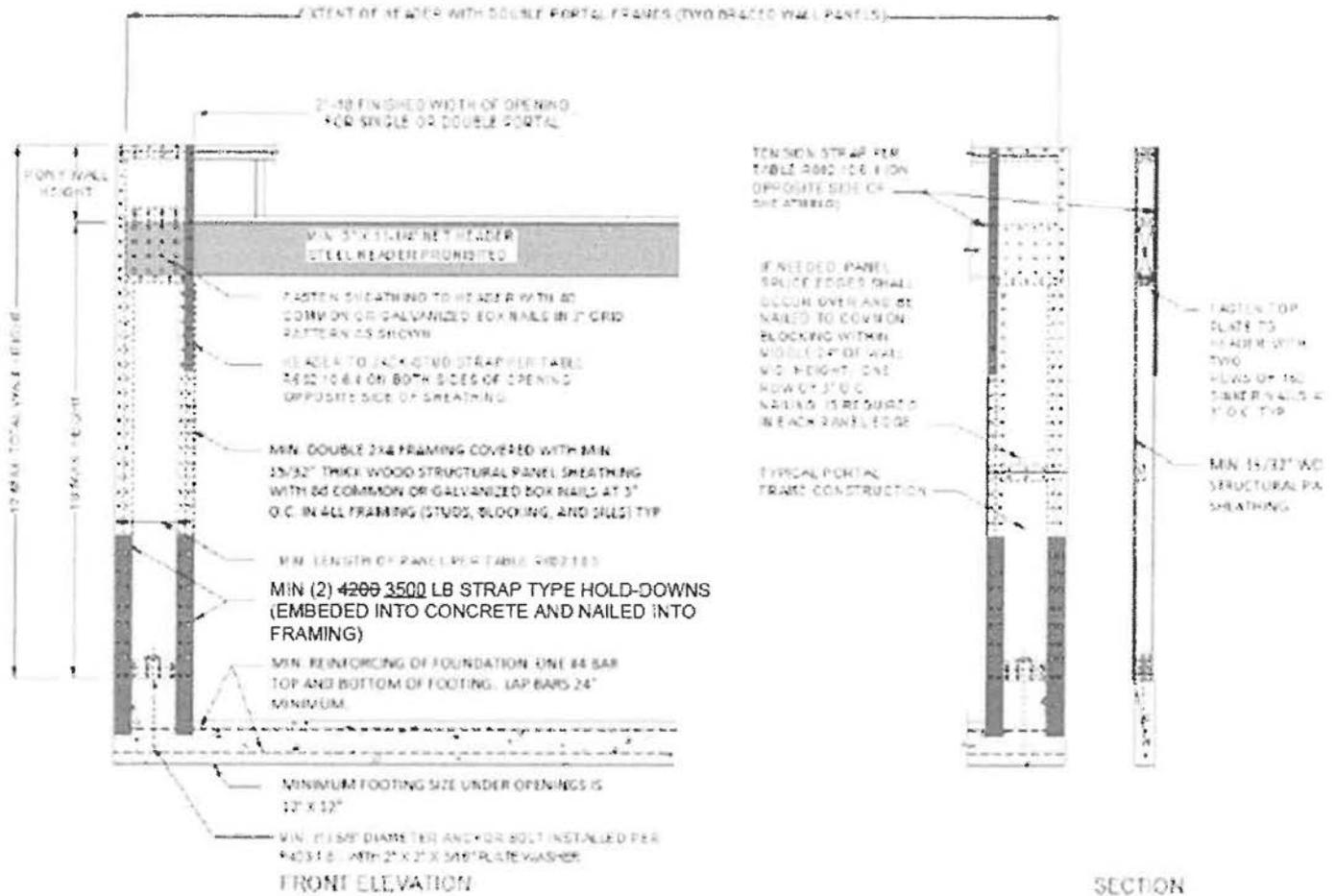
**Table 91.5.602.10.5  
Minimum Length Of Braced Wall Panels**

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

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.  
NP = Not Permitted.

- a. Linear interpolation shall be permitted.
- b. Use the actual length when it is greater than or equal to the minimum length.
- c. Maximum header height for PFH is 10 feet (3048 mm) in accordance with CRC Figure R602.10.6.2, but wall height may be increased to 12 feet (3657.6 mm) with pony wall.
- d. Maximum opening height for PFG is 10 feet (3048 mm) in accordance with CRC Figure R602.10.6.3, but wall height may be increased to 12 feet (3657.6 mm) with pony wall.
- e. Maximum opening height for CS-PF is 10 feet (3048 mm) in accordance with CRC Figure R602.10.6.4, but wall height may be increased to 12 feet (3657.6 mm) with pony wall.

Sec. 160. Figure 91.5.602.10.6.2 of Section 91.5.600, Division 6, Article 1.5 of Chapter IX of the LAMC is amended to read as follows:



**Figure 91.5.602.10.6.2**  
**Method PFH – Portal Frame with Hold-downs at Garage Door Openings**  
**(Added by Ord. No. 192.845, Eff. 1/3/14.)**

Sec. 161. Subsection 91.5.603.2.4 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is deleted in its entirety.

Sec. 162. Subsection 91.5.606.2.4 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is renumbered as Subsection 91.5.606.4.4 and amended to read as follows:

**91.5.606.4.4. Parapet Walls.** Unreinforced solid masonry parapet walls shall not be less than 8 inches (203.2 mm) thick and their height shall not exceed four times their thickness. Unreinforced hollow unit masonry parapet walls shall be not less than 8

inches (203.2 mm) thick, and their height shall not exceed three times their thickness. Masonry parapet walls in areas subject to wind loads of 30 pounds per square foot (1.44 kPa) or located in Seismic Design Category D<sub>0</sub>, D<sub>1</sub>, or D<sub>2</sub> or on townhouses in Seismic Design Category C shall be reinforced in accordance with CRC Section R606.12.

Sec. 163. The first sentence of Subsection 91.5.606.12.2.2.3 of Section 91.5.600, Division 6, Article 1.5, Chapter IX of the LAMC is amended to read as follows:

Masonry elements listed in CRC Section R606.12.2.2.2 shall be reinforced in either the horizontal or vertical direction as shown in CRC Figure R606.11(2) and in accordance with the following:

Sec. 164. Section 92.0135, Division 1, Article 2, Chapter IX of the LAMC is amended to read as follows:

The powers of the Department and the Board are enumerated in LAMC Section 98.0403.1.

Sec. 165. Section 92.0136, Division 1, Article 2, Chapter IX of the LAMC is amended to read as follows:

Appeals or requests for slight modifications in individual cases from the requirements of this Code shall be made in accordance with the procedures established in LAMC Section 98.0403.2.

Sec. 166. Section 92.0304, Division 3, Article 2, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **SEC. 92.0304. PRIVATE RESIDENCE ELEVATORS.**

All elevators in private residences shall comply with the provisions of ASME A 17.1-2004 and this article. Part 5, Section 5.3 of ASME A17.1-2004 is adopted by reference, with the following exceptions and modifications: Sections 5.3.1.7.7, 5.3.1.8.1(a), 5.3.1.8.1(d), 5.3.1.18.4(a) and 5.3.1.18.5 are not adopted.

(a) **Car Enclosure.** Except at entrances, cars shall be enclosed on all sides and on the top. The enclosure shall be constructed of solid material, except openwork material may be provided for ventilation. When openwork material for ventilation is provided, it shall meet the requirement of ASME A17.1-2004, Rule 2.14.2.3.

(b) **Machine and Controls.** Machine and controls shall be located as follows:

1. Machines, controls and disconcerting means shall not be mounted on cars, and shall be located outside of the hoistway in spaces dedicated to the elevator equipment.

2. The machine room shall have a head clearance of at least 7 feet, and shall be provided with permanent electric lighting and a duplex receptacle rated at not less than 15A at 120V.

3. Required workspace clearance for elevator control and/or machinery spaces shall be located entirely within the interior of the building.

(c) **Cars Doors and Gates.** A car door, when closed, shall guard the full opening of the entrance to the car. Car doors or gates shall be of solid construction. Scissors type gates are prohibited.

(d) **Glass in Hoistway Landing Doors.** Glass used in hoistway landing doors shall comply with ASME A17.1-2004, Section 2.11.7.

(e) **Car Platform and Landing Sills.** Sills shall be of metal and shall comply with ASME A17.1-2004, Rule 2.11.10.1.1 except 2.11.10.1.1(c).

(f) **Projections or Setbacks in the Hoistway.** Any projection or setbacks in the hoistway shall comply with ASME A17.1-2004, Section 2.1.6 except Rule 2.1.6.2(b) and Rule 2.1.6.2(d) where projections or setbacks allow 4 inches (101.6 mm), this shall be reduced to 2 inches (50.8 mm).

(g) **Glass Used in a Hoistway of a Non-Fire Resistive Construction.** Glass used in the hoistway shall comply with ASME A17.1-2004, Rule 2.1.1.2.1, Rule 2.1.1.2.2(d) and Rule 2.1.1.5 and shall also comply with the following:

1. Entrance into the bottom (below car) of the hoistway or at the top (above car) of the hoistway for cleaning and maintenance purposes shall comply with ASME A17.1-2004, Rule 5.2.1.4.2 (Bottom) and Rule 5.2.1.4.4 (top).

2. The cleaning and maintenance of the glass in the hoistway shall comply with the following:

(i) The cleaning of glass car enclosure and/or hoistway enclosures from inside the hoistway shall be performed by a City of Los Angeles Licensed Journey Level Elevator Mechanic as required by LAMC Section 92.0119 and employed by a State of California C11 Licensed Elevator Company.

(ii) A written cleaning procedure shall be developed by the original installation elevator company and kept on the premises where the elevator controller is located. The procedure shall identify the hazards and shall also detail safety precautions to be utilized.

(iii) A maintenance data plate with lettering a minimum size of 6 mm (0.25 inch) high on a contrasting background shall be fastened in a

conspicuous place inside the elevator stating: "ALL MAINTENANCE OF ELEVATOR, INCLUDING THE CLEANING OF GLASS, SHALL BE PERFORMED AS REQUIRED BY L.A.M.C. Section 92.0119."

(iv) A copy of the glass cleaning procedure from the original elevator installation company, on the original elevator installation company's letterhead, shall be made available on the acceptance inspection to the LADBS Elevator Division.

Sec. 167. Section 93.0101, Division 1, Article 3, Chapter IX of the LAMC is amended to read as follows:

This article shall be known as the "**Los Angeles Electrical Code**," a portion of the "**Los Angeles Municipal Code**." Wherever the word "**Code**" is used in this article, it shall mean the "**Los Angeles Electrical Code**" and whenever "**LAMC**" is used, it shall refer to the "**Los Angeles Municipal Code**." References to the "**CEC**" and the "**CBSC**" shall mean the 2016 "**California Electrical Code**" and the 2016 "**California Building Standards Codes**" respectively. Whenever the word "City" is used, it shall mean the "City of Los Angeles." Whenever the word "Department" is used, it shall mean the "Department of Building and Safety."

Sec. 168. Section 93.0111, Division 1, Article 3, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **SEC. 93.0111. CHANGE OF OCCUPANCIES.**

(a) Any building or portion of a building in which there has been a change of occupancy or location, after July 1, 1986, to one of the following, shall be wired in accordance with this Code. (See LAMC Section 91.8203.).

1. Locations defined by CEC Division 500 or this Code as hazardous locations.
2. Occupancies defined in Article 1, Chapter IX of the LAMC, and which are required by Article 7, Chapter V, of the LAMC, or where the owner or designer has installed a fire alarm system.
3. Occupancies where the new occupant load exceeds the original or previous value in the building. The occupant load is determined according to the provisions of this the Los Angeles Building Code.
4. Occupancies where the proposed new load density exceeds that of the original or previously used space. Load density is determined based on the load per square foot of area under consideration for the permit.

5. Change in use or occupancy requiring a more restrictive wiring method.

Sec. 169. A new Section 93.0116 is added to Division 1, Article 3, Chapter IX of the LAMC to read as follows:

**SEC. 93.0116. FIRE DAMAGED WIRING SYSTEM.**

(a) When the Department determines by field verification that the extent of damage to the wiring system installation in a building, structure or area:

- (i) Exceeds 50%, the entire electrical wiring system has to be reinstalled in compliance with the current code;
- (ii) Is 50% or less, only the damaged wiring system has to be reinstalled in compliance with the current code.

Sec. 170. Subsection (a) of Section 93.0117, Division 1, Article 3, Chapter IX of the LAMC is amended to read as follows:

(a) The provisions of this section shall apply to any exterior luminaire, multi-head luminaire, lamp holder or sign light source.

Sec. 171. The first sentence of Subsection (b) of Section 93.0117, Division 1, Article 3, Chapter IX of the LAMC is amended to read as follows:

No person shall construct, establish, create, or maintain any stationary exterior light source that may cause the following locations to be either illuminated by more than two footcandles (21.5 lx) of lighting intensity or receive direct glare from the light source. Direct glare, as used in this subsection is a glare resulting from high luminances or insufficiently shielded light sources that is in the field of view.

Sec. 172. The first sentence of Subdivision 3 of Subsection (b) of Section 93.0117, Division 1, Article 3, Chapter IX of the LAMC is amended to read as follows:

3. Any ground surface intended for use but not limited to recreation, barbecue, or lawn areas on any other property containing a residential unit or units.

Sec. 173. The Exceptions in Subdivision 3, Subsection (b) of Section 93.0117, Division 1, Article 3, Chapter IX of the LAMC are amended to read as follows:

**EXCEPTIONS:** Subsection (b) shall not apply to:

1. Any frosted light source emitting 800 lumens or less.

2. Any other light source emitting more than 800 lumens where the light source is not visible to persons on other residential property.

3. Any new or existing tennis or paddle tennis court exterior light source which conforms to the following:

A. Tennis courts shall be lighted by a maximum of eight full cut-off, horizontally mounted 1,000 watts or less luminaires, shielded in such a manner that the light source cannot be viewable from abutting residential properties. A luminaire shall not have a light intensity of more than 7,500 cd in rural areas, and 25,000 cd in the urban areas as these areas are defined by the 2010 US Census. The luminaire shall be mounted at a height of 20 feet (6096 mm) or less above the court surface and produce not more than 50 footcandles (538 lx) of lighting intensity on the court surface.

B. Paddle Tennis Courts shall be subject to all the provisions of Subparagraph 3A, except that the number of luminaires shall be limited to four.

C. Tennis or Paddle Tennis Court lights shall not be turned on or left on between the hours of 10:00 p.m. and 7:00 a.m., Monday through Friday, and between the hours of 10:00 p.m. and 8:00 a.m., Saturday and Sunday.

D. The allowed light source intensity at locations indicated in Subsection (b) shall not exceed three footcandles (32.3 lx).

4. Decorative lights with individual light sources emitting 300 lumens or less and temporarily installed between November 25 and January 15 of the next year.

5. Emergency lights or temporary lighting sources used for repair or construction as required by governmental agencies.

6. Lighting sources owned or controlled by any public agency for the purpose of directing or controlling navigation, traffic or for highway or street illumination.

7. Aircraft warning lights.

8. Any other light source which is a minimum of 2,000 feet (609.6 m) in distance from any other property with a residential unit or units.

9. Lights that are provided in compliance with LAMC Sections 12.21 A.5. (k), Subsection 91.6305.2 and Section 91.8607.

Sec. 174. Subsection (c) of Section 93.0117, Division 1, Article 3, Chapter IX of the Los Angeles Municipal Code is amended to read as follows:

(c) The owner of property with any existing light source shall bring such light source into compliance with this section upon receipt of written notice from the Department.

Sec. 175. Subdivisions 1, 2 and 4 of Subsection (a) of Section 93.0202, Division 2, Article 3, Chapter IX of the LAMC are amended to read as follows:

1. Electric wiring expressly declared to be exempt from permit requirements of this Code by any other sections of the Code or by any other provisions of the LAMC.
2. Wiring for temporary theater sets on the theater stages or temporary motion picture or television sets on any property belonging to or under the control of the City, privately owned studios, theaters, or similar locations designed for that usage.
4. Repair or replacement of fixed motors or fixed appliances, supplied by branch circuits not exceeding 20 amperes and not exceeding 240 volts nominal, of the same type and rating in the same location where not located in an area classed as "**hazardous**" under CEC Article 500.

Sec. 176. Subdivision 13 of Subsection (a) of Section 93.0202, Division 2, Article 3, Chapter IX of the LAMC is amended to read as follows:

13. The following electrical wiring:
  - (i) Non-required signaling circuits supplied by an approved Class 2 limited power source, capable of supplying not more than 30 volts and 100 volt-amperes; and
  - (ii) Non-required communication circuits which have the power limited in accordance with CEC Section 725.121; and
  - (iii) Non-required amplifier output circuits which are permitted by CEC Section 640.9(C) to employ Class 2 or Class 3 wiring; and
  - (iv) Any non-required circuit which operates at 12.4 volts or less and does not generate, transmit, transform, utilize or control more than 25 watts or volt-amperes of electric power.

**EXCEPTION:** No permit is required provided the above-described wiring is not located in any of the following locations:

- a. Area classified as "hazardous" under CEC Article 500;
- or
- b. Appurtenant to a required fire alarm and signaling system as classified under CEC Article 760; or
- c. Penetrating any fire-resistive wall or floor system; or
- d. In a plenum, duct or other space used for environmental air including access floors.

Sec. 177. Subdivisions 15, 16 and 17 of Subsection (a) of Section 93.0202, Division 2, Article 3, Chapter IX of the LAMC are amended to read as follows:

15. Repair or replacement of like in kind luminaires in single-family dwellings.

16. Any electric wiring, except wiring located in an area classified as "**hazardous**" under CEC Article 500 after the branch circuit distribution panelboards used exclusively to supply or interconnect equipment installed, owned, operated or maintained by a communication public utility and used exclusively for communication purposes, in the exercise of its communication public utility functions within the communication public utility controlled areas.

17. The replacement of defective smoke detectors, smoke alarms or carbon monoxide alarms in a single-family dwelling when the work is performed by a contractor with a valid Certificate of Registration pursuant to LAMC Section 91.1704. A Certificate of Compliance pursuant to LAMC Subsection 91.108.12 must be filed with the City in lieu of a permit.

Sec. 178. Subdivisions 3 and 4 of Subsection (b) of Section 93.0206, Division 2, Article 3, Chapter IX of the LAMC are amended to read as follows:

3. All health care facilities within the scope of CEC Article 517.

4. A new building or an addition to a building if the computed area exceeds 30,000 square feet (2,787 m<sup>2</sup>), any first time tenant(s), any installation if the total load exceeds 400 amperes, or the installation of equipment rated 600 amperes or more. The computed area shall be the sum of the areas on each floor bounded by the outside surfaces of the exterior walls and shall include floor areas beneath building projections that extend more than 6 feet (182.8 mm).

Sec. 179. New Subdivisions 11 and 12 are added to Subsection (b) of Section 93.0206, Division 2, Article 3, Chapter IX of the LAMC to read as follows:

11. Installation of renewable energy system(s) (i.e., photovoltaic, wind, fuel cell, etc.).

**EXCEPTION:** Department approved on-line permitted plans.

12. Engineering calculation(s) and analysis.

Sec. 180. A new Subsection (r) is added to Section 93.0207, Division 2, Article 3, Chapter IX of the LAMC to read as follows:

(r) Scope of the work.

Sec. 181. Subsections (a) and (b) of Section 93.0235, Division 2, Article 3, Chapter IX of the LAMC are amended to read as follows:

(a) The fees for conducting or witnessing the original test of an Emergency System or Fire Alarm and Signaling System shall be collected as specified in LAMC Section 98.0412(f) for each inspector. The fees required by this section shall be in addition to the fees required elsewhere in the Code.

(b) The fees for conducting or witnessing an annual test for each existing emergency system, other than unit equipment, shall be prescribed in Table A of this section.

Sec. 182. Subsections (d) and (f) of Section 93.0304, Division 3, Article 3, Chapter IX of the LAMC are amended to read as follows:

(d) Nothing contained in this section shall prohibit the temporary use of electric energy when and as specifically provided for in LAMC Section 93.0308.

(f) Inspections shall be required for construction or installation of electrical work done on the premises of a Fabricator to whom an approval has been issued pursuant to the provisions of Division C, Article 6, Chapter IX of the LAMC.

**EXCEPTION:** State of California approved manufactured mobile homes or building.

Sec. 183. Subsection (a) of Section 93.0305, Division 3, Article 3, Chapter IX of the LAMC is amended to read as follows:

(a) Whenever any work regulated by this Code, or any portion thereof, is ready for inspection, the Department shall be notified by the qualified installer that the work is ready for inspection. The notice shall be on forms furnished by the Department website, by telephone or to Department personnel. The notice shall be filed with the Department no later than 2:00 PM on the regular business day prior to the requested inspection date and not more than 72 hours before any inspection is

desired. Inspections are performed on regular business days between the hours of 8:45 AM and 3:30 PM. Alternate inspection times may be scheduled upon request.

Sec. 184. Subsection (i) of Section 93.0306, Division 3, Article 3, Chapter IX of the LAMC is amended to read as follows:

(i) Whenever any electrical wiring or equipment has been inspected and found to comply with the provisions of this Code, the Department inspector shall leave a notice of approval on the inspection record card, Department website or other suitable place.

Sec. 185. Subsection (l) of Section 93.0306, Division 3, Article 3, Chapter IX of the LAMC is amended to read as follows:

(l) In addition to the requirements of Division 3, Article 3, Chapter IX of the LAMC for inspections, a satisfactory acceptance testing of the entire emergency systems, legally required standby and critical operations systems installation and function shall be made on the complete system in the presence and under the direction of a representative of the Department and the Los Angeles City Fire Department prior to final approval.

The annual testing of the fire warning, emergency, legally required standby and critical operations systems shall be conducted by the Los Angeles City Fire Department.

Sec. 186. Subsection (c) of Section 93.0307, Division 3, Article 3, Chapter IX of the LAMC is deleted in its entirety.

Sec. 187. Section 93.0402, Division 4, Article 3, Chapter IX of the LAMC is amended to read as follows:

No person shall sell, offer for sale, advertise, or display for sale, dispose of by way of gift, loan, rental, lease or premium, or install or use any **"equipment,"** as defined in CEC Article 100, unless that equipment has been approved by the Department.

**EXCEPTION 1:** Equipment listed by an approved laboratory, provided the label, symbol or other identifying mark of the approved laboratory is affixed to the equipment and further provided that the equipment is installed and used in conformance with its listing and this Code.

**EXCEPTION 2:** Equipment certified by an approved laboratory, provided the label, symbol or other identifying mark of the approved laboratory is affixed to the equipment, installed and used in conformance with its conditions of acceptability. The certification agency shall either publish or provide to the Department the scope and limitations(s) of certified equipment. The equipment shall be in compliance with this Code.

Sec. 188. The first sentence of Section 93.0600, Division 6, Article 3, Chapter IX of the LAMC is amended to read as follows:

Chapter 1 of the 2016 California Electrical Code (CEC) is adopted by reference for the purpose of providing definitions and requirements for electrical installations with the following additions and amendments and as specifically provided herein.

Sec. 189. The definition of Approved Laboratory is added in alphabetical order to Section 93.0600, Division 6, Article 3, Chapter IX of the LAMC to read as follows:

**APPROVED LABORATORY.** A laboratory that is approved by the Department when it complies with the provisions of LAMC Section 98.0503.

Sec. 190. The first paragraph of Section 93.0700, Division 7, Article 3, Chapter IX of the LAMC is amended to read as follows:

Chapters 1 through 9, Annex C, H, G and I of the 2014 Edition of the National Electrical Code (NEC), as published by the National Fire Protection Association (N.F.P.A. 70-2014), the 2016 California Electrical Code (CEC) and the California Building Standards Code (CCR Title 24) are adopted by reference as part of this Code. When there is a conflict between the 2014 NEC, the 2016 CEC and the LAMC, LAMC Section 93.0105 shall prevail. Except as specified in Divisions 1 through 6 of Article 3, Chapter IX of the Los Angeles Municipal Code (LAMC), all electrical installations and materials shall be in conformity with the 2016 CEC, as adopted by reference to be part of this Code and LAMC Subsections 93.515.17, 93.515.18 and 93.700.19 are added as provided here.

Sec. 191. A new Subsection 93.0700.9 is added after Subsection 93.515.18 of Section 93.0700, Division 7, Article 3, Chapter IX of the LAMC to read as follows:

**93.0700.19. Illuminated Exit Signs.** Illuminated exit signs used as part of emergency system shall be supplied from two independent branch circuits. One branch circuit shall be supplied from an emergency system, and the other branch circuit shall be supplied from a normal system.

**EXCEPTION:** Unit equipment branch circuits as permitted in CEC Section 700.12(F).

Sec. 192. Division 1, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **ARTICLE 4, DIVISION 1**

#### **ADMINISTRATION**

## **SEC. 94.100.0. BASIC PROVISIONS.**

Chapter 1 of the 2016 California Plumbing Code (CPC) is not adopted.

## **SEC. 94.101.0. TITLE, SCOPE AND GENERAL.**

**94.101.1. Title.** This article shall be known as the “**Los Angeles Plumbing Code**”, a portion of the Los Angeles Municipal Code, and wherever the word “**Code**” is used in this article, it shall mean the “**Los Angeles Plumbing Code**” and whenever “**LAMC**” is used, it shall mean the Los Angeles Municipal Code. Whenever the word “**City**” is used in this article, it shall mean “**City of Los Angeles.**” Whenever the word “**Department**” is used in this article, it shall mean “**Department of Building and Safety.**”

**94.101.2. Scope.** The provisions of this Code shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of plumbing systems within the City.

**94.101.3. Purpose.** The purpose of this Code is to safeguard health, life, property and public welfare by regulating the design, alteration, construction, installation, repair, and quality of materials for plumbing, fire sprinkler, rainwater piping, standpipe, subsurface drainage piping, swimming pool piping, reclaimed water piping, underground fire-protection piping, and graywater piping systems installed in the City.

**94.101.4. Conflicts Between Codes.** Where the requirements of this Code conflict with the requirements of the mechanical code, this Code shall prevail. In instances where the Code, applicable standards, or the manufacturer’s installation instructions conflict, the most restrictive requirement shall prevail. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall prevail.

### **94.101.5. Plans Required.**

**94.101.5.1. General.** Before starting any work and at any time during the progress of any work regulated by this Code, the Department may require the submission of plans, specifications, drawings and other information it deems necessary. The issuance of a permit upon approved plans shall not prevent the Department from requiring the correction of errors in them and stopping work on construction based on these plans when in violation of this Code or of any other applicable ordinance or statute; or from revoking any approval when issued in error.

**94.101.5.2. Signature.** Plans and specifications shall bear the signature and registration or license number of an engineer, contractor or other person licensed in the appropriate classification by the State of California.

**94.101.5.3. Risers and Isometrics.** System riser or isometric diagrams shall be provided for all drainage, waste and vent, fuel gas, potable water, storm drain, rain water, sump pump, combination waste and vent and standpipe systems. Plans shall be suitable for use by office engineers and field inspectors.

**94.101.5.4. Quality of Plans.** Plans shall be legible, clear, of 1/8 inch (3.175 mm) per foot scale or larger, except risers and isometrics need not be to scale.

**94.101.5.5. Stamped Plans on Job.** The set of plans and specifications stamped and issued to the applicant by the Department shall be kept at the site of the construction or work and shall be available to an authorized representative of the Department. There shall be no deviation from the stamped or approved applications, plans or specifications without Department approval.

**94.101.5.6. Types of Plans Required to be Submitted.** Plans signed by a qualified submitter shall be filed with and approved by the Department before any work listed below is started:

1. Drainage systems.
  - a. Drainage and vent systems involving fixtures that discharge 217 or more fixture units.
  - b. Drainage pumps and ejectors.
2. Combination waste and vent systems.
3. Fuel gas piping with any of the following:
  - a. Systems having more than ten outlets.
  - b. Medium pressure gas systems.
  - c. High pressure gas systems.
  - d. Methane gas extraction systems.
4. Potable water piping with any of the following:
  - a. Systems requiring a 2-inch (50.80 mm) or larger supply.
  - b. Systems designed from the procedure in CPC Section 610.5.
  - c. Systems utilizing cross-linked polyethylene tubing (PEX) requiring a 2 inch (50.80 mm) or larger supply or when required by the conditions of approval of the City of Los Angeles Mechanical Testing Laboratory Research Report.
  - d. Systems utilizing chlorinated polyvinyl chloride (CPVC) piping requiring a 2-inch (50.80mm) or larger supply or when required by the

conditions of approval of the City of Los Angeles Mechanical Testing Laboratory Research Report.

**EXCEPTION:** Plan check is not required for existing systems that are added to or altered, with branch lines that serve fewer than 20 fixture units and sized by CPC Table 610.4.

5. Rainwater piping systems with more than ten interconnected rainwater or overflow drains, or a rainwater pump.

6. Special water piping systems for reclaimed water piping.

7. Reserved.

8. Swimming pool circulating water systems.

**EXCEPTION:** Private swimming pools.

9. Fire Protection.

a. Class H. Standpipes.

b. Standpipes: Class I, II, III.

c. Fire pump systems.

d. Fire hydrant systems.

e. Hand hose systems connected to fire sprinkler piping.

f. Monitor nozzle systems.

g. Underground fire protection piping.

h. Fire sprinkler systems.

**EXCEPTIONS:**

1. Raising or lowering of sprinklers due to change in ceiling height.

2. Replacing of sprinklers of the same type, orifice size and temperature rating.

3. Relocation of sprinklers in previously occupied buildings or tenant spaces.

**94.101.6. Repairs and Alterations.** In existing buildings or premises in which plumbing installations are to be altered, repaired, or renovated, deviations from this Code are permitted, provided such deviations are found to be necessary and are first approved by the Authority Having Jurisdiction.

**94.101.6.1. Building Sewers and Drains.** Existing building sewers and building drains shall be permitted to be used in connection with new buildings or new plumbing and drainage work where they are found on examination and test to be in accordance with the requirements governing new work, and the proper Authority Having Jurisdiction shall notify the owner to make changes necessary to be in accordance with this Code. No building, or part thereof, shall be erected or placed over a part of a drainage system that is constructed of materials other than those approved elsewhere in the LAMC for use under or within a building.

**94.101.6.2. Openings.** Openings into a drainage or vent system, excepting those openings to which plumbing fixtures are properly connected or which constitute vent terminals, shall be permanently plugged or capped in an approved manner using the appropriate materials in accordance with this Code.

**94.101.7. Maintenance.** The plumbing and drainage system of a premises under the Authority Having Jurisdiction shall be maintained in a sanitary and safe operating condition by the owner or the owner's agent.

**94.101.8. Existing Construction.** No provision of this Code shall be deemed to require a change in a portion of a plumbing or drainage system, or other work regulated by this Code, in or on an existing building or lot where such work was installed and is maintained in accordance with law in effect prior to the effective date of this Code, except where a plumbing or drainage system or other work regulated by this Code is determined by the Authority Having Jurisdiction to be in fact dangerous, unsafe, insanitary, or a nuisance and a menace to life, health, or property.

**94.101.9. Additions, Alterations, or Repairs.** Additions, alterations, repairs, and replacements of plumbing systems shall comply with the provisions for new systems except as otherwise provided in LAMC Subsection 94.101.11.

**94.101.10. Appendices.** The provisions in the appendices are intended to supplement the requirements of this Code and shall not be considered part of this Code unless formally adopted as such.

**94.101.11. Application to Existing Plumbing System.** Additions, alterations, or repairs shall be permitted to be made to a plumbing system without requiring the existing plumbing system to be in accordance with the requirements of this Code, provided the addition, alteration, or repair is in accordance with that required for a new plumbing system. Additions, alterations, or repairs shall not cause an existing system to become unsafe, insanitary, or overloaded.

**94.101.11.1. Health and Safety.** Where compliance with the provisions of this Code fails to eliminate or alleviate a nuisance, or other dangerous or insanitary condition that

involves health or safety hazards, the owner or the owner's agent shall install such additional plumbing and drainage facilities or shall make such repairs or alterations as ordered by the Authority Having Jurisdiction.

**94.101.11.2. Existing Installation.** Plumbing system lawfully in existence at the time of the adoption of this Code shall be permitted to have their use, maintenance, or repair continued where the use, maintenance, or repair is in accordance with the original design and location, and no hazard to life, health, or property has been created by such plumbing system.

**94.101.11.3. Changes in Building Occupancy.** Plumbing systems that are a part of a building or structure undergoing a change in use or occupancy, as defined in Article 1, Chapter IX of the LAMC, shall be in accordance with the requirements of this Code that are applicable to the new use or occupancy.

**94.101.11.4. Operating Condition.** Plumbing systems, materials, and appurtenances, both existing and new, and parts thereof shall be maintained in operating condition. Devices or safeguards required by this Code shall be maintained in accordance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for maintenance of plumbing systems. To determine compliance with this subdivision, the Authority Having Jurisdiction shall be permitted to cause a plumbing system to be reinspected.

**94.101.11.5. Moved Buildings.** Plumbing systems that are part of buildings or structures moved into this jurisdiction shall be in accordance with the provisions of this Code for new installations, except as provided for in CBC Section 103.5.8.2.

**94.101.11.6. Prohibited Acts.**

**94.101.11.6.1.** No person shall add, alter, change, construct, install, locate, maintain, move, occupy, relocate, remove, renovate, repair, replace, or use any plumbing system, water-connected appliances, products or devices, fire sprinkler system, rainwater piping, standpipe, subsurface drainage piping, swimming pool piping, reclaimed water piping, underground fire protection piping, or graywater piping systems except as provided by this Code.

**94.101.11.6.2.** No person shall use or maintain any private sewage disposal system on any lot or parcel of land, that has failed, is in an overflowing condition, or in the judgment of the Department is unsanitary or is a menace to life, health or property. If the private system fails, all drainage piping shall be connected to the public or private sewer when the lot or parcel of land abuts any public way or sewer easement in which a public or private sewer exists and is available.

**94.101.11.6.3.** No person shall alter, add to or relocate any private sewage-disposal system on any lot or parcel of land that abuts any public way or sewer easement in which a public sewer exists and is ready for use.

**94.101.11.6.4.** No person shall sell, offer for sale, display for sale, advertise for sale, loan, rent or lease, dispose of by way of gift or premium or otherwise for reuse or use, the following:

1. Any plumbing fixture, appliance, apparatus, equipment, device, material or domestic gas appliance that has not been approved as to its fitness and safety for its intended use or purpose.

**EXCEPTION:** The sale of used gas ranges and used gas ovens is not prohibited.

2. Any water-operated or water-using device, mechanism or equipment, the use of which may cause the pollution or contamination of the domestic water supply. Any such device, mechanism or equipment may be allowed when properly equipped with approved backflow protection.

**94.101.11.7. Exemptions From Code.** The provisions of this Code shall not apply to the following:

**94.101.11.7.1. Public Sewers.** Any sewer entirely within a public way or any private sewer installed under the jurisdiction of the Los Angeles City Department of Public Works or the Los Angeles County Flood Control District as an incident to improvement of a public way when no portion of the private sewer extends more than 6 feet (1828.8 mm) into private property, as measured from the property line abutting the public way.

**94.101.11.7.2. Street Water Mains.** Any water main, water service or water meter of the Los Angeles City Department of Water and Power or other utility.

**94.101.11.7.3. Street Gas Mains.** Any street gas main or any gas service piping.

**94.101.11.7.4. Refineries and Wells (Gas Piping).** Fuel gas piping that is part of a refinery or gas well, provided piping for fuel gas used on the premises shall conform to the provisions of this Code.

**94.101.11.7.5. Portable Gas Cooking Appliances.** Any portable gas cooking appliance designed for outdoor use and installed outdoors.

**94.101.11.7.6. Vehicles.** Any work within an aircraft, railroad car, ship or other vehicle, which is not classified as a building or structure.

**94.101.11.7.7. Manufactured Homes, Recreational Vehicles, Commercial Coaches, Special Purpose Commercial Coaches, Mobile Homes, Mobile Home Parks.** Any work within any manufactured home, recreational vehicle, commercial coach, special purpose commercial coach, mobile home or any mobile home park, including accessory buildings, permanent buildings and on-site piping outside of buildings.

## **SEC. 94.102.0. ORGANIZATION AND ENFORCEMENT.**

**94.102.1. Authority Having Jurisdiction.** The Authority Having Jurisdiction shall be the Authority duly appointed to enforce this Code. For such purposes, the Authority Having Jurisdiction shall have the powers of a law enforcement officer. The Authority Having Jurisdiction shall have the power to render interpretations of this Code and to adopt and enforce rules and regulations supplemental to this Code as deemed necessary in order to clarify the application of the provisions of this Code. Such interpretations, rules, and regulations shall comply with the intent and purpose of this Code.

In accordance with the prescribed procedures and with the approval of the appointing authority, the Authority Having Jurisdiction shall be permitted to appoint such number of technical officers, inspectors, and other employees as shall be authorized from time to time. The Authority Having Jurisdiction shall be permitted to deputize such inspectors or employees as necessary to carry out the functions of the code enforcement agency.

**94.102.2. Duties and Powers of the Authority Having Jurisdiction.** The Authority Having Jurisdiction shall be permitted to request the assistance and cooperation of other officials of this jurisdiction so far as required in the discharge of the duties in accordance with this Code or other pertinent law or ordinance.

**94.102.2.2. Stop Orders.** Where work is being done contrary to the provisions of this Code, the Authority Having Jurisdiction shall be permitted to order the work stopped by notice in writing served on persons engaged in the doing or causing such work to be done, and such persons shall forthwith stop work until authorized by the Authority Having Jurisdiction to proceed with the work.

**94.102.2.3. Authority to Disconnect Utilities in Emergencies.** The Authority Having Jurisdiction shall have the authority to disconnect a plumbing system to a building, structure, or equipment regulated by this Code in case of emergency where necessary to eliminate an immediate hazard to life or property.

**94.102.2.4. Authority to Condemn.** Where the Authority Having Jurisdiction ascertains that a plumbing system or portion thereof, regulated by this Code, has become hazardous to life, health, or property, or has become insanitary, the Authority Having Jurisdiction shall order in writing that such plumbing either be removed or placed in a safe or sanitary condition. The order shall fix a reasonable time limit for compliance. No person shall use or maintain defective plumbing after receiving such notice.

When such plumbing system is to be disconnected, written notice shall be given. In cases of immediate danger to life or property, such disconnection shall be permitted to be made immediately without such notice.

**94.102.3. Appeals.** Appeals of orders, decisions, or determinations made by the Authority Having Jurisdiction relative to the application and interpretations of this Code,

shall be made to the Los Angeles Department of Building and Safety Board of Building and Safety Commissioners (Board). The Authority Having Jurisdiction shall be an ex-officio member and shall act as secretary to the Board but shall have no vote upon a matter before the Board. Members of the Board shall be appointed and serve pursuant to the City of Los Angeles Charter. The Board shall adopt rules of procedure for conducting its business and shall render decisions and findings in writing to the appellant with a duplicate copy to the Authority Having Jurisdiction.

**94.102.3.1. Limitations of Authority.** The Board shall have no authority relative to interpretation of the administrative provisions of this Code, nor shall the Board be empowered to waive requirements of this Code.

**94.102.4. Violations.** It shall be unlawful for a person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use, or maintain plumbing or permit the same to be done in violation of this Code.

## **SEC. 94.103.0. PERMITS AND INSPECTIONS.**

### **94.103.1. Permits Required.**

**94.103.1.1. General.** Except as otherwise provided in this Code, no person shall add, alter, construct, install, move, reconstruct, relocate, remove, repair or replace any plumbing, fire sprinkler, rainwater piping, standpipe, subsurface drainage piping, swimming pool piping, reclaimed water piping, underground fire protection piping, or graywater piping system unless a plumbing or fire sprinkler permit for it has been obtained from the Department.

**94.103.1.1.1.** A permit shall be required where the Department has determined that the gas piping shall be retested for the following:

1. The system has been out of service for a period of one year.
2. Where the Department has determined there is system leakage creating an immediate hazard to persons or property.

**94.103.1.1.2. Relocated Buildings.** Except as otherwise provided in this Code, no person shall connect any work in a relocated building to a supply pipe or drain pipe unless a permit for all the work in the relocated building has been obtained from the Department.

**94.103.1.1.3. Separate Permits Required.** A separate plumbing and/or fire sprinkler permit shall be obtained for the work indicated on each building permit.

**94.103.1.1.4.** No person shall be subject to fine, imprisonment, or payment of an investigation fee for starting or doing work without a permit being first obtained, if a permit is obtained for the work on or before 12:00 noon of the third day the office of the Department is open for public business after the work was started.

**94.103.1.1.5. Transfer of Permits and Plan Checks.** No permit shall be transferable from the original permittee to any other person unless the property owner authorizes the transfer in writing. Upon authorization, the new permittee shall file with the Department a new permit and pay to the Department a fee as specified in LAMC Section 98.0415 for issuing the new permit. This fee includes the issuing permit fee as specified in LAMC Subsection 94.103.4. No plan check is transferable from one contractor to another unless prepared and signed by a state-licensed engineer in the proper classification.

**94.103.1.2. Permits Not Required.**

**94.103.1.2.1. General.** The work described in this subsection shall not require a permit. However this waiver of permit shall not be deemed to allow any work to be added, altered, constructed, demolished, installed, reconstructed, relocated, removed, repaired or replaced contrary to the provisions of this Code.

**94.103.1.2.2. General Repairs.** No permit shall be required for the repairing or replacement of faucets, ball cocks, exposed fixture traps or shut-off valves, or a residential garbage disposal.

**94.103.1.2.3. Stoppages and Leaks.** No permit shall be required for the clearing of stoppages or repairing of leaks, except in gas piping, when the repairs do not require the removal and replacement of plumbing fixtures or any portion of the drainage system.

**94.103.1.2.4. Gas Piping.** No permit shall be required for the installation or repair of a gas utility meter, nor for gas piping between the gas main and the nearest gas utility meter, nor for gas piping installed by the gas utility outside of private property, nor for the gas utility to disconnect defective gas piping and/or equipment when authorized by CPC Section 1206, nor for any piping connection less than six feet (1828.8 mm) in length between an existing gas outlet and a gas appliance in the same room.

**94.103.1.2.5.** A separate plumbing permit shall not be required for the installation of any plumbing system for which a combined building-mechanical permit has been obtained pursuant to LAMC Subdivision 91.107.2.2.

**94.103.1.2.6.** No permit shall be required for the capping of a private sewage disposal system where a grading permit is required.

**94.103.1.2.7. Water Heater Repair.** No permit shall be required for the repair of any gas-fired water heater, provided the water heater is not disconnected.

**94.103.1.2.8. Resetting of Fixtures.** No permit shall be required for the resetting of existing plumbing fixtures on existing rough-in, which have been removed for the sole purpose of repairing or replacing walls or floors.

#### **94.103.1.2.9. High Efficiency Fixtures.**

(a) **Residential.** Whenever new fixtures are installed, all water closets, shower heads, faucets and dishwashers shall be High Efficiency fixtures installed in accordance with the regulations of the City's Water Conservation Plan. A plumbing permit is not required for the installation of High Efficiency water closets, shower heads, faucets and dishwashers in existing one and two family dwelling units when done as part of the City's "Water Conservation Retrofit Program" pursuant to the City's water conservation regulations. These permit exempted installations shall be limited to the replacement of non-water efficient water closets, shower heads, faucets and dishwashers with new High Efficiency water closets, shower heads, faucets, and dishwashers installed on the existing rough-in plumbing outlets. Plumbing permits shall be required for all High Efficiency fixtures in new buildings. This section does not waive the requirement for a licensed plumbing contractor to perform the installation of a High Efficiency water fixture in an apartment unit or non-owner-occupied single-family dwellings.

(b) **Commercial.** Whenever new fixtures are installed, all water closets, urinals, shower heads, faucets and dishwashers shall be High Efficiency fixtures installed in accordance with the regulations of the City's Water Conservation Ordinance. A plumbing permit shall be obtained for both new and replacement installations of all High Efficiency water closets, urinals, and dishwashers to confirm that the new installation or replacement is in accordance with the regulations of the City's Water Conservation Ordinance. In all commercial occupancies, a Qualified Installer, as defined in LAMC Section 94.219.0 shall perform the installation of any High Efficiency water fixture or appliance.

**94.103.1.2.10. Rainwater Systems.** No permit shall be required for exterior exposed rainwater leaders.

**94.103.1.2.11. Exhibition.** No permit shall be required for work set up for exhibition or for a television or motion picture set without any direct connection to any system for which a permit is required.

**94.103.1.2.12. Certified Licensed Contractors.** No permit shall be required for the replacement of the following items when the work is done on a detached, single-family dwelling and the work is performed by a contractor with a valid Certificate of Registration as a certified licensed contractor pursuant to LAMC Subdivision 91.108.12.3:

1. Replacement of defective hot water heaters with one of equivalent gallons, BTU rating, and vent capacity when the vent does not require relocation or replacement.

2. Replacement of plumbing fixtures and solar panels with equal kind and quality.
3. Replacement of defective domestic water piping within a dwelling with piping of equivalent size and quality.
4. Replacement of defective metallic water service piping with piping of equivalent size, quality, and conductivity. Metallic water service piping cannot be replaced with PVC under this provision.
5. Replacement of shower pans with the same size and capacity.

A Certificate of Compliance pursuant to LAMC Subdivision 91.108.12.3 must be filed with the City in lieu of a permit.

**94.103.2. Application for Permit.** To obtain a permit, the applicant shall first file an application therefor, in writing, on a form furnished by the Authority Having Jurisdiction for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land upon which the proposed work is to be done by legal description, street address, or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use or occupancy for which the proposed work is intended.
4. Be accompanied by plans, diagrams, computations, and other data in accordance with LAMC Subdivision 94.103.2.1.
5. Be signed by the permittee or the permittee's authorized agent. The Authority Having Jurisdiction shall be permitted to require evidence to indicate such authority.
6. Give such other data and information in accordance with the Authority Having Jurisdiction.

**94.103.2.1. Plans and Specifications.** Plans, engineering calculations, diagrams, and other data shall be submitted in one or more sets with each application for a permit. The Authority Having Jurisdiction shall be permitted to require plans, computations, and specifications to be prepared and the plumbing designed by, an engineer, an architect, or both who shall be licensed by the state to practice as such.

**EXCEPTION:** The Authority Having Jurisdiction shall be permitted to waive the submission of plans, calculations, or other data where the Authority

Having Jurisdiction finds that the nature of the work applied for is such that reviewing of plans is not necessary to obtain compliance within this Code.

**94.103.2.2. Information on Plans and Specifications.** Plans and specifications shall be drawn to scale upon substantial paper or cloth and shall indicate the location, nature, and extent of the work proposed and show in detail that it is in accordance with the provisions of this Code and relevant laws, ordinances, rules, and regulations.

**94.103.3. Permit Issuance.** The application, plans, specifications and other data filed by an applicant for a permit shall be reviewed by the Authority Having Jurisdiction. Such plans shall be permitted to be reviewed by other departments of this jurisdiction to verify compliance with applicable laws under their jurisdiction. Where the Authority Having Jurisdiction finds that the work described in an application for permit and the plans, specifications, and other data filed therewith are in accordance with the requirements of this Code and other pertinent laws and ordinances, and that the fees specified in LAMC Subsection 94.103.4 have been paid, the Authority Having Jurisdiction shall issue a permit therefor to the applicant.

Where the Authority Having Jurisdiction issues the permit where plans are required, the Authority Having Jurisdiction shall endorse in writing or stamp the plans and specifications "APPROVED." Such approved plans and specifications shall not be changed, modified, or altered without authorization from the Authority Having Jurisdiction, and the work shall be done in accordance with approved plans.

The Authority Having Jurisdiction shall be permitted to issue a permit for the construction of a part of a plumbing system before the entire plans and specifications for the whole system have been submitted or approved, provided adequate information and detailed statements have been filed in accordance with the pertinent requirements of this Code. The holder of such a permit shall be permitted to proceed at the holder's risk without assurance that the permit for the entire building, structure, or plumbing system will be granted.

**94.103.3.1. Retention of Plans.** One set of approved plans, specifications, and computations shall be retained by the Authority Having Jurisdiction until final approval of the work covered therein. One set of approved plans and specifications shall be returned to the applicant and said set shall be kept on the site of the building or work at times during which the work authorized thereby is in progress.

**94.103.3.2. Validity of Permit.** The issuance of a permit or approval of plans and specifications shall not be construed to be a permit for, or an approval of, a violation of the provisions of this Code or other ordinance of the jurisdiction. No permit presuming to give authority to violate or cancel the provisions of this Code shall be valid.

The issuance of a permit based upon plans, specifications, or other data shall not prevent the Authority Having Jurisdiction from thereafter requiring the correction of errors in said plans, specifications, and other data or from preventing building

operations being carried on thereunder where in violation of this Code or other ordinances of this jurisdiction.

**94.103.3.3. Expiration of Permits.** Permits shall expire as provided for in LAMC Section 98.0602.

**94.103.3.4. Suspension or Revocation.** Permits may be revoked as provided in LAMC Section 98.0601.

**94.103.4. Fees.**

**94.103.4.1. Permit Fees.** Before any permit required by this Code is issued, the applicant shall pay to the Department the fees specified in LAMC Table 103.4 for each building or structure.

**TABLE 103.4  
PLUMBING PERMIT FEE SCHEDULE**

<b>Permit:</b>	<b>Fee</b>
1. For issuing permits:	
Permit issuing fee	\$24.00
Supplementary permit issuing fee	\$20.00
<b>Plumbing fixtures and water systems:</b>	
2. For each plumbing fixture and waste discharging device, such as, toilet, urinal, bathtub, shower, lavatory, kitchen sink and other type of sink, garbage disposal, clothes washer, drinking fountain, floor drain, laundry tray, floor sink, dental cuspidor and chemical waste fixture:	
Original installation	\$23.00
Replacement or Removal	\$10.00
3. For each piece of water treating, dispensing equipment or trap primer connected to a potable water system	\$17.00
4. For replacing water piping in a building, each fixture, each water treating device or each water using device	\$14.00
5. For each water pressure regulator	\$17.00
6. For atmospheric-type vacuum breakers not included in Item 2 each	\$7.00
7. For each backflow protective device other than atmospheric-type vacuum breakers, each	\$24.00

8.	For each water heater and vent or heat exchanger	\$28.00
9.	For each thermal expansion tank	\$15.00
10.	For booster pumps for potable water systems (including tanks that are an integral part of the pump package), each system	\$86.00
11.	For water storage tanks for potable water systems that are not part of a listed appliance or part of a booster pump package, each tank	\$72.00
12.	On-site water distribution system (Multiple buildings)	\$194.00
	Water service (Single building)	\$64.00
<b>Waste systems:</b>		
13.	For repair or alteration of drainage and/or vent piping, per fixture	\$10.00
14.	For each sewage ejector	\$79.00
15.	For each industrial waste, pretreatment clarifier, sand or grease interceptor	\$36.00
16.	For each complete private sewage disposal system, each system	\$158.00
	For each separate septic tank, cesspool, seepage pit or drain field	\$64.00
17.	For building sewer installations:	
	For each connection to the public sewer or dry sewer, each building drain	\$40.00
	For each on-site manhole	\$158.00
	For sewer alterations, repairing or capping, each building or structure	\$24.00
	For each backwater valve	\$24.00
18.	For graywater piping system; includes a maximum of two inspections	\$79.00
<b>Rainwater systems:</b>		
19.	For each rainwater drain (including roof, overflow, area and deck drains, etc.)	\$23.00
20.	For each subsurface drainage piping system (not including sump pumps)	\$79.00
21.	For each sump pump	\$79.00

**Gas systems:**

22. For each gas system outlet	\$10.00
23. For each earthquake valve or each gas pressure regulator (not applicable to appliance regulator)	\$23.00
24. Methane Gas Extraction System: includes a maximum of two inspections	\$121.00

**Other plumbing systems:**

25. Lawn sprinklers, each valve	\$7.00
26. Solar systems components: (including collectors, related storage tanks piping and regulating devices)	\$21.00
27. Each public swimming pool or spa (per system)	\$242.00

**Fire protection:**

28. Standpipes: wet, dry or combination (Class I, II or III) Class H or hand hoses for fire protection:	
Each outlet that has an integral pressure regulator	\$72.00
Other outlets without pressure regulators	\$50.00
Capping of outlets (each outlet)	\$10.00
29. Water pressure regulators for fire protection systems (except regulators that are part of a standpipe outlet valve), each regulator	\$63.00
30. Fire sprinkler piping removal or alteration, or the replacement or addition of valves, attachments or devices, each	\$61.00
31. Underground fire sprinkler piping, or yard piping system for fire sprinklers (when permit has not been obtained for complete fire sprinkler system)	\$144.00
32. Replacing fire sprinkler heads (except fused or broken heads):	
1 to 10 heads	\$28.00
11 to 50 heads	\$57.00
51 to 100 heads	\$117.00
Plus \$117.00 for each 100 heads or fraction thereof over 100 heads	
33. Fire sprinkler piping installations:	
From 1 to 10 sprinkler heads	\$64.00

From 11 to 25 sprinkler heads	\$122.00
From 26 to 50 sprinkler heads	\$194.00
From 51 to 100 sprinkler heads	\$360.00
From 101 to 200 sprinkler heads	\$547.00
From 201 to 300 sprinkler heads	\$648.00
From 301 to 500 sprinkler heads	\$1225.00
From 501 to 1000 sprinkler heads	\$1730.00
From 1001 to 2000 sprinkler heads	\$2884.00
From 2001 to 3000 sprinkler heads	\$4326.00
From 3001 to 4000 sprinkler heads	\$5047.00
From 4001 to 5000 sprinkler heads	\$5768.00
From 5001 to 6000 sprinkler heads	\$6489.00
Over 6000 fire sprinkler heads	\$7931.00
Plus \$144.00 for each 100 heads or fraction of 100 heads over 6000 heads.	
34. Fire hydrant:	
1 to 3 hydrants	\$348.00
Over 3, each	\$117.00
35. The fee for relocation of heads or for converting a system from upright to pendant heads, or from pendant heads to upright heads, shall be as set forth for a new installation.	
36. Fire pumps:	
Serving Class II (wet) or Class H standpipes:	
For each installation pump	\$115.00
Original test of pump	\$115.00
Additional test of pump	\$115.00
Serving Class III (combination) combined and/or Fire sprinkler systems:	
For each installation of pump	\$288.00
Test of each pump (each test)	\$540.00
37. Tanks for fire protection systems, each tank	\$63.00
38. Class I (dry) standpipe flush:	

One or two risers	\$134.00
Each additional riser	\$80.00
39. Minimum Inspection Fee: A permittee shall pay a minimum fee as specified in LAMC Section 98.0412(a) of this Code to the Department for each plumbing installation for which a permit is required by this Code. Where the cumulative fees set forth in this Code are less than the minimum fee, the minimum fee shall be paid. The fee required by this subsection shall include the issuing fee required by Item 1 of this table.	
a. Minimum inspection fee	\$93.00
b. Single fixtures	\$57.00

**94.103.4.2. Plan Check Fees.** Before plans are checked, the applicant shall pay the following plan check fees to the Department:

**94.103.4.2.1.** Plumbing drainage and vent piping, fuel gas piping, gas vents, rainwater piping, subsurface drainage piping and water piping.

All projects:

- 70% of the permit fee,
- \$93.00 minimum per building.

**EXCEPTION:** Portions of installations:

Plan checking of potable water:

- 60% of the above fee,
- \$93.00 minimum per building.

Plan checking of conventional waste and vent systems, only:

- 50% of the above fee,
- \$93.00 minimum per building.

**94.103.4.2.2.** In addition to the fee specified in LAMC Paragraph 94.103.4.2.1, a plan checking fee shall be assessed for checking the following systems:

Combination waste and vent piping systems, each..... \$216.00

Sump pump and sewage ejector systems, each.....	\$208.00
Greywater systems, each.....	\$312.00
Irrigation sprinkler piping systems,	
First 5000 square feet (464.515 m <sup>2</sup> ) of irrigated area.....	\$312.00
Every additional 5000 square feet (464.515 m <sup>2</sup> ) or fraction thereof...	\$108.00
Soil remediation systems, each.....	\$216.00
Methane gas venting systems, each.....	\$216.00
Hydraulic calculations of standpipe systems serving 2-1/2 inch (63.50 mm) fire hose valves and fire sprinklers, each fire protection zone.....	\$721.00

Fire protection, swimming pool piping and all other systems not covered by LAMC Paragraph 94.103.4.2.1:

- 70% of the permit fee,
- \$93.00 minimum per building.

**94.103.4.3. Expiration of Permit and Plan Check.** Permits may expire as provided in LAMC Section 98.0602. Plans may expire as provided in LAMC Section 98.0603.

**94.103.4.4. Investigation Fees.** Investigation Fees may be assessed as provided in LAMC Section 98.0402.

**94.103.4.5. Refund of Fees.** Refund of fees may be requested as provided in LAMC Section 98.0420.

**94.103.4.6. Additional Permit and Inspection Fees.**

**94.103.4.6.1. Miscellaneous Equipment.** A minimum fee as specified in LAMC Section 98.0412(c) shall be paid for inspection of any installation of equipment regulated by this Code which requires inspection for determination of Code compliance and where the installation inspection is not provided for in the permit fee schedule specified in LAMC Subdivision 94.103.4.1. This fee is in addition to the permit issuing fee specified in LAMC Table 103.4.

**94.103.4.6.2. Miscellaneous Piping.** When special permission has been obtained from the Department, a miscellaneous permit shall be issued for fire sprinkler, fire protection underground, domestic water, waste or vent piping installed underground or in walls or ceilings of installations where a fire protection or a plumbing permit cannot be issued until the required plans have been approved. The miscellaneous permit shall not be an authorization to install any additional piping. A fee as specified in LAMC Section

98.0412(c) shall be collected for the inspection of this installation and shall be limited to one inspection trip and one reinspection trip. This fee is in addition to the permit issuing fee specified in LAMC Table 103.4.

**94.103.4.6.3. Additional Inspections.** If more inspection trips than specified in this article are found necessary due to fault or error on the part of the qualified installer or his employees, the permittee shall pay an additional fee as specified in LAMC Section 98.0412(b) for each additional inspection trip. This fee is in addition to the permit issuing fee specified in LAMC Table 103.4.

**94.103.4.6.4. Off-Hour Inspections.** The Department may, at its discretion, make inspections at other than normal working hours upon application by a permittee as specified in LAMC Section 98.0406.

**94.103.4.6.5. Off-Site Inspection.** The Department may, at its discretion, make inspections at locations other than the site upon which a building will be located, provided the location is within 60 miles of the Los Angeles City Hall. A fee as specified in LAMC Section 98.0412(e), in addition to fees charged elsewhere in this Code, shall be charged for the inspections. The time shall include travel to and from the place of inspections.

**94.103.4.6.6. Change of Address and Transfer of Permit or Plan**

**Checks.** Applications for plan check and permits shall indicate the correct legal street address. If the Department determines a job address or the location of a job is incorrect, then the permit becomes void. If the applicant files a separate application (showing the correct information) and pays a filing fee as specified in LAMC Section 98.0415(a), then no additional permit fee will be required.

**94.103.4.6.7. Critical Soil Survey.** The fee for a survey of location for a proposed private sewage disposal system, and/or percolation test, shall be \$92.00. On premises where a public sewer is not available for use, a survey and percolation test may be required to determine if a private sewer disposal system can be installed to adequately serve the intended use.

**94.103.4.7. Additional Plan Check Fees.**

**94.103.4.7.1. Hourly Plan Check Fee.** The Department may collect a plan check fee, based on an hourly rate, for any item not included in the plan check schedule as provided in LAMC Section 98.0415(e).

**94.103.4.7.2. Off-hour Plan Check Fee.** The Department may, at its discretion, provide plan check at other than normal working hours upon application by an applicant as specified in LAMC Section 98.0422.

**94.103.4.7.3. Energy Plan Check Fee.** The Department shall impose an energy plan check fee of 10% of the permit fee for the service of checking plans when the work is

required to comply with Part 6, Title 24, of the California Code of Regulations (California Energy Code).

**94.103.4.8. Systems Development Surcharge.** A permittee shall pay a surcharge for the development and implementation of a City-wide automated permit processing service as provided in LAMC Section 98.0416.

**94.103.4.9. Development Services Centers Surcharge.** A permittee shall pay a surcharge as provided in LAMC Section 98.0410.

**94.103.5. Inspections.** Plumbing systems for which a permit is required by this Code shall be inspected by the Authority Having Jurisdiction.

No portion of a plumbing system shall be concealed until inspected and approved. Neither the Authority Having Jurisdiction nor the jurisdiction shall be liable for expense entailed in the removal or replacement of material required to permit inspection. When the installation of a plumbing system is complete, an additional and final inspection shall be made. Plumbing systems regulated by this Code shall not be connected to the water, the energy fuel supply, or the sewer system until authorized by the Authority Having Jurisdiction.

**94.103.5.1. Water Supply System.** No water supply system or portion thereof shall be covered or concealed until it first has been tested, inspected, and approved.

**94.103.5.2. New Plumbing Work.** New plumbing work and such portions of existing systems as affected by new work, or changes, shall be inspected by the Authority Having Jurisdiction to ensure compliance with the requirements of this Code and to ensure that the installation and construction of the plumbing system is in accordance with approved plans.

**94.103.5.3. Covering or Using.** No plumbing or drainage system, building sewer, private sewer disposal system, or part thereof, shall be covered, concealed, or put into use until it has been tested, inspected, and accepted as prescribed in this Code.

**94.103.5.4. Uncovering.** Where a drainage or plumbing system, building sewer, private sewage disposal system, or part thereof, which is installed, altered or repaired, is covered or concealed before being inspected, tested and approved as prescribed in this Code, it shall be uncovered for inspection after notice to uncover the work has been issued to the responsible person by the Authority Having Jurisdiction.

**94.103.5.5. Operation of Plumbing Equipment.** The requirements of this section shall not prohibit the operation of plumbing installed to replace existing equipment or fixtures serving an occupied portion of the building in the event a request for inspection of such equipment or fixture has been filed with the Authority Having Jurisdiction not more than 72 hours after such replacement work is completed, and before a portion of such plumbing system is concealed by a permanent portion of the building.

**94.103.5.6. Testing of Systems.** Plumbing systems shall be tested and approved in accordance with this Code or the Authority Having Jurisdiction.

**94.103.5.6.1. Test.** Tests shall be conducted in the presence of the Authority Having Jurisdiction or the Authority Having Jurisdiction's duly appointed representative.

**94.103.5.6.2. Test Waived.** No test or inspection shall be required where a plumbing system, or part thereof, is set up for exhibition purposes and has no connection with a water or drainage system.

**94.103.5.6.3. Exceptions.** In cases where it would be impractical to provide the required water or air tests, or for minor installations and repairs, the Authority Having Jurisdiction shall be permitted to make such inspection as deemed advisable in order to be assured that the work has been performed in accordance with the intent of this Code.

**94.103.5.6.4. Tightness.** Joints and connections in the plumbing system shall be gastight and watertight for the pressures required by the test.

**94.103.5.7. Inspection Requests.** It shall be the duty of the person doing the work authorized by a permit to notify the Authority Having Jurisdiction that such work is ready for inspection. The Authority Having Jurisdiction shall be permitted to require that a request for inspection be filed not less than one (1) working day before such inspection is desired. Such request shall be in writing or by telephone, at the option of the Authority Having Jurisdiction.

It shall be the duty of the person requesting inspections in accordance with this Code to provide access to and means for inspection of such work.

**94.103.5.7.1. Advance Notice.** It shall be the duty of the person doing the work authorized by the permit to notify the Authority Having Jurisdiction, orally or in writing, that said work is ready for inspection. Such notification shall be given not less than 24 hours before the work is to be inspected.

**94.103.5.7.2. Responsibility.** It shall be the duty of the holder of a permit to make sure that the work will stand the test prescribed before giving the notification.

The equipment, material, and labor necessary for inspection or tests shall be furnished by the person to whom the permit is issued or by whom inspection is requested.

**94.103.5.7.3. Test Equipment.** The equipment, material, and labor necessary for inspection or tests shall be furnished at no cost to the City.

**94.103.5.8. Other Inspections.** In addition to the inspections required by this Code, the Authority Having Jurisdiction shall be permitted to require other inspections of plumbing work to ascertain compliance with the provisions of this Code and other laws that are enforced by the Authority Having Jurisdiction.

**94.103.5.8.1. Defective Systems.** An air test shall be used in testing the sanitary condition of the drainage or plumbing system of building premises where there is reason to believe that it has become defective. In buildings or premises condemned by the Authority Having Jurisdiction because of an insanitary condition of the plumbing system, or part thereof, the alterations in such system shall be in accordance with the requirements of this Code.

**94.103.5.8.2. Moved Structures.** Parts of the plumbing systems of a building or part thereof that is moved from one foundation to another, or from one location to another, shall be completely tested as prescribed elsewhere in this section for new work, except that walls or floors need not be removed during such test where other equivalent means of inspection acceptable to the Authority Having Jurisdiction are provided.

**94.103.5.9. Reinspections.** A reinspection fee shall be permitted to be assessed for each inspection or reinspection where such portion of work for which inspection is called is not complete or where required corrections have not been made.

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

Reinspection fees shall be permitted to be assessed where the approved plans are not readily available to the inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from plans requiring the approval of the Authority Having Jurisdiction.

To obtain reinspection, the applicant shall file an application in writing upon a form furnished for that purpose and pay the reinspection fee in accordance with LAMC Table 103.4.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

**94.103.5.9.1. Corrections.** Notices of correction or violation shall be written by the Authority Having Jurisdiction and shall be permitted to be posted at the site of the work or mailed or delivered to the permittee or his authorized representative.

Refusal, failure, or neglect to comply with such notice or order within 10 days of receipt, shall be considered a violation of this Code and shall be subject to the penalties set forth elsewhere in this Code for violations.

**94.103.5.9.2. Retesting.** Where the Authority Having Jurisdiction finds that the work will not pass the test, necessary corrections shall be made, and the work shall be resubmitted for test or inspection.

**94.103.5.9.3. Approval.** Upon the satisfactory completion and final test of the plumbing system, a certificate of approval shall be issued by the Authority Having Jurisdiction to the permittee on demand.

**94.103.6. Connection Approval.** No person shall make connections from a source of energy or fuel to a plumbing system or equipment regulated by this Code and for which a permit is required until approved by the Authority Having Jurisdiction.

**94.103.6.1. Other Connections.** No person shall make a connection from a water-supply line nor connect to a sewer system regulated by this Code and for which a permit is required until approved by the Authority Having Jurisdiction.

**94.103.6.2. Temporary Connections.** The Authority Having Jurisdiction shall be permitted to authorize temporary connection of the plumbing equipment to the source of energy or fuel for the purpose of testing the equipment.

**94.103.7. Unconstitutional.** Where a section, subsection, sentence, clause, or phrase of this Code is, for a reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this Code. The legislative body hereby declares that it would have passed this Code, and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, and phrases are declared unconstitutional.

**94.103.8. Validity.** Where a provision of this Code, or the application thereof to a person or circumstance, is held invalid, the remainder of the Code, or the application of such provision to other persons or circumstances, shall not be affected thereby.

**94.103.10. Certificate of Final Inspection.**

**94.103.10.1. Fees.** No Certificate of Final Inspection shall be issued until all fees required by this Code have been paid to the Department.

**94.103.10.2. Approval.** A Certificate of Final Inspection shall be issued for work that has been inspected and approved, upon demand, provided that no Certificate of Final Inspection for gas piping shall be issued until all required fire sprinklers, standpipes and fire hydrants are approved and ready for use.

**94.103.10.3. To Whom Issued.** No Certificate for Final Inspection shall be issued to any person, other than the owner of the building, structure, or premises, the person who did the work, or the agent of the owner or person.

**94.103.11. Qualified Installer.** It is unlawful for any person who is not a Qualified Installer as defined in Division 2, Article 4, Chapter IX of the LAMC to alter, install, or repair any plumbing regulated by this Code, except as provided in LAMC Subdivision 94.103.12.1 and Subsection 94.103.13.0.

**94.103.12.0. Maintenance Certificate of Registration.**

**94.103.12.1.** A Maintenance Certificate of Registration as defined in Division 2, Article 4, Chapter IX of the LAMC may be issued to the owner or occupant of specified premises for the sole purpose of adding to, altering, maintaining or repairing existing plumbing only on the premises designated.

**94.103.12.2. Issuance.** Every applicant who passes the required examination or has in his employ a qualified maintenance supervisor as defined in Division 2, Article 4, Chapter IX of the LAMC who is properly registered with the Department shall be issued a Maintenance Certificate of Registration for specified premises upon payment of a fee.

**94.103.12.3. Validity.** A Maintenance Certificate of Registration issued to an owner or occupant of premises by virtue of the fact that an employee of that person is registered with the Department as a holder of a valid Certificate of Qualification as a maintenance supervisor shall become invalid when the owner or occupant ceases to have in his or her employ a certified maintenance supervisor properly registered with the Department.

**94.103.12.4. Maintenance Permits.** Permits may be issued to the holder of a valid Maintenance Certificate of Registration for the addition to, alteration, maintenance or repair of existing plumbing on premises owned by or under the legal control of the applicant, provided all work authorized by the permit is performed by or is under the direct supervision of the holder of a Certificate of Qualification as a Maintenance Supervisor, registered with the Department for the premises.

**94.103.13.0. Certificate of Qualification Required.**

**94.103.13.1. Scope.** No person except a Qualified Installer as defined in Division 2, Article 4, Chapter IX of the LAMC shall supervise or perform the labor of altering, installing or repairing any plumbing regulated by this Code.

**EXCEPTION:** A person in the employ of a Qualified Installer and who supervises plumbing work shall be required to have a Certificate of Qualification.

**94.103.13.1.1. Apprentices and Helpers.** No Certificate of Qualification shall be required for an apprentice or helper, as defined in Division 2, Article 4, Chapter IX of the LAMC, who is working under the continuous supervision of a Qualified Installer or journey level plumber. Supervision shall be considered continuous if the Qualified Installer or journey level plumber is not absent for more than one hour continuously nor more than two hours total during any one day. No more than three apprentices or helpers shall be employed for each Qualified Installer or journey level plumber on any lot.

**94.103.13.2. Gas Fitting.** A person who holds a valid Certificate of Qualification as a journey level gas fitter may perform the labor of gas fitting in the employ of and under the supervision of a Qualified Installer.

**94.103.13.3. Maintenance Supervisor.** No person shall act as a Maintenance Supervisor unless that person holds a valid Certificate of Qualification in the proper classification issued pursuant to the provisions of this article. No person shall act in the capacity of a Maintenance Supervisor for more than one firm at any one time.

**94.103.13.4. Employment.** No Qualified Installer, Maintenance Supervisor or any other person shall employ any journey level plumber for the installation of plumbing work covered in this Code unless that journey level plumber holds a valid Certificate of Qualification in the proper classification except by special permission of the Department. No person shall hire or employ an apprentice or helper in violation of any provision of this Code.

**94.103.14. Applications.**

**94.103.14.1. Forms.** Application for any certificate shall be made on a form furnished by the Department.

**94.103.14.2. Information Necessary.** The application shall bear the name and address of the applicant, and if a corporation, the names of the principal officers. The application shall carry other information deemed necessary by the Department.

**94.103.14.3. Notarization.** The application shall be verified under oath by the applicant.

**94.103.14.4. Fees.** The application shall be accompanied by the required examination fee as follows:

**FEE SCHEDULE**

<b>Application</b>	<b>Fees</b>
For application for Certificate of Registration	\$115.00
For Certificate of Qualification issued as a result of examination given by Board of Examiners of Plumbing and Gas Fitters	\$42.00
For Certificate of Qualification issued under a reciprocal licensing agreement ( <b>Amended by Ord. No. 179,326, Eff. 12/10/07, Oper. 1/1/08.</b> )	\$42.00

**94.103.15. Examinations.**

**94.103.15.1. Examination Required.** Before any person shall be issued a Certificate of Registration or Qualification, he or she shall have successfully passed the examination required for the issuance of the Certificate within 90 days preceding the date of issuance.

In lieu of an examination, the Superintendent of Building may accept a valid journey level plumber qualification certificate issued pursuant to an examination by other organizations or governmental agencies within the County of Los Angeles, provided that the examination shall be, in the opinion of the Department, equivalent in scope and character to the examination for journey level plumbers given by the City. The Department's acceptance of this certificate shall be in writing and renewable every three years.

**94.103.15.2. Experience Required.** To be eligible for the examination for a Certificate of Registration, the applicant shall have had at least two years' experience as a journey level plumber.

To be eligible for the examination for journey level plumber, the applicant shall have had at least four years' experience as an apprentice or helper.

Special training or education acceptable to the Department may be credited as the equivalent of up to one year of the required experience.

The applicant shall be required to furnish satisfactory evidence of his or her experience and training.

**94.103.15.3. Board of Examiners.** Examinations may be conducted by a Board of Examiners composed of three qualified persons appointed by the Superintendent of Building.

The results of every examination shall be subject to the approval of the Superintendent of Building.

Each examiner shall be appointed by the Superintendent of Building. Each Examiner shall serve for a period of two years unless reappointed by the Superintendent.

**94.103.15.4. Scope of the Examination.** The examination shall, in the judgment of the Department, be designed to fairly determine the ability of the applicant to perform properly the work which he or she would be authorized to do by the certificate. The examination shall include a written part and may also include the following:

- (1) Practical test as may be required.
- (2) An oral interview as may be required.
- (3) Other tests as may be required by the Department.

**94.103.15.5. Rules and Regulations.** The Department shall have the authority to establish rules and regulations for the conduct of examinations.

**94.103.15.6. Fitness of Applicant.** Any applicant for a Certificate may be required to submit satisfactory proof of his or her fitness to carry out the intent of this Code.

**94.103.16. Issuance of Certificate.**

**94.103.16.1. Certificate of Registration.** Every applicant who passes the required examination for a Maintenance Certificate of Registration or who registers with the Department the holder of a valid Certificate of Qualification as a maintenance supervisor shall be issued a Maintenance Certificate of Registration upon the payment of a fee.

**94.103.16.2. Certificate of Qualification.** Every applicant who passes the required examination for journey level plumber, journey level gas fitter or Maintenance Supervisor shall be issued a Certificate of Qualification upon the payment of a fee.

**94.103.16.3.** Every Certificate of Registration or Qualification shall be issued only by the Department.

**94.103.16.4. Public Utility Corporation.** A public utility corporation engaged in the distribution or sale of gas in the City shall be issued, without examination, a Certificate of Registration as Master Gas Fitter upon the payment of a fee as specified in LAMC Section 98.0414(b)1. That public utility corporation shall be subject to this Code with respect to the certifying and examination of journey level gas fitters.

**94.103.16.5. Partnership, Firm and Corporation.** Upon the payment of a fee as specified in LAMC Section 98.0414(b)1, a partnership firm or corporation may be issued a Certificate of Registration as a Master Gas Fitter. If a person in effective authority and control over all work regulated by Chapter 5 and 12 of the Uniform Plumbing Code has passed the required examination within the time prescribed by LAMC Section 98.0406(a).

**94.103.17. Renewal of Certificates.**

**94.103.17.1. Certificate of Registration.** Every Certificate of Registration shall expire three years from the date of issuance. The certificate may be renewed, upon application, within the 30 days following the date of expiration upon the payment of a renewal fee.

**94.103.17.2. Certificate of Qualification.** Every Certificate of Qualification shall expire three years from the date of issuance. Applications for renewal shall be made within 30 days following the date of expiration.

**94.103.17.3. Delinquent Certificates.** Expired certificates may be renewed at any time within 12 months following the date of expiration provided that, after the first month, the renewal fee shall be increased by 10% for each month after the first.

After a certificate has been expired for one year, it may not be renewed.

**94.103.18. Exhibition of Certificate.**

**94.103.18.1.** All persons having a fixed place of business shall keep their Certificates of Registration posted in some conspicuous portion of their place of business during the time the Certificate of Registration is in force.

**94.103.18.2.** Every person not having a fixed place of business shall carry his or her Certificate of Registration at all times while doing any construction or work regulated by this Code.

**94.103.18.3.** Every journey level plumber shall carry his or her Certificate of Qualification at all times while doing any construction or work regulated by this Code.

**94.103.19. Revocation of Certificate.** Any certificate may be suspended or revoked in accordance with the provisions of Article 8, Chapter IX of the LAMC.

**94.103.20. Transfer of Certificate.** No certificate shall be transferable. A Certificate of Registration issued to a firm or corporation shall be the property of that firm and may be transferred along with the other assets but may not be transferred separately. The dissolution of a firm, partnership, or corporation renders the Certificate of Registration void.

Sec. 193. Section 94.200.0, Division 2, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 2 of the 2016 California Plumbing Code (CPC) is adopted by reference with the following exceptions: CPC Sections 203, 204, 205, 206, 207, 208, 210, 212, 215, 219, 220, and 221 are not adopted and, in lieu, LAMC Sections 94.203.0, 94.204.0, 94.205.0, 94.206.0, 94.207.0, 94.208.0, 94.210.0, 94.212.0, 94.215.0, 94.219.0, 94.220.0, and 94.221.0 are added.

Sec. 194. Section 94.205.0, Division 2, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.205.0. C.**

Section 205 of the CPC is adopted by reference with the following additions and amendments:

**California Plumbing Code. (CPC).** The 2016 Edition of the California Plumbing Code, also known as Part 5, Title 24 of the California Code of Regulations (CCR), a portion of the California Building Standards Code. The California Plumbing Code adopts the 2015 Edition of the Uniform Plumbing Code by reference with required state amendments.

Sec. 195. The first paragraph of Section 94.218.0, Division 2, Article 4, Chapter IX of the LAMC is amended to read as follows.

Section 218 of the CPC is hereby adopted by reference.

Sec. 196. The definitions of "Private or Private Use" and "Public or Public Use" in Section 94.218.0, Division 2, Article 4, Chapter IX of the LAMC are deleted in their entirety.

Sec. 197. Section 94.300.0, Division 3, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 3 of the 2016 CPC is adopted by reference.

Sec. 198. The title to Division 4, Article 4, Chapter IX of the LAMC is amended to read as follows:

## ARTICLE 4, DIVISION 4

### PLUMBING FIXTURES AND FIXTURE FITTINGS

Sec. 199. Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 4 of the 2016 CPC is adopted by reference except CPC Sections 407.2.2, 411.2.3, and 412.1, are not adopted, and LAMC Subsections and Subdivisions 94.403.2, 94.403.3, 94.403.3.1.1, 94.403.4, 94.403.9, 94.412.1, 94.414.4, and 94.414.5 are amended or added to read as follows:

Sec. 200. Subsections 94.403.2 through 94.403.9.2 of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC are deleted in their entirety.

Sec. 201. A new Subsection 94.407.2.2, of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.407.2.2. Metering Faucets.** All faucets in public restrooms shall be self-closing or self-closing metering faucets. Metered faucets shall deliver a maximum of 0.25 gallons (1.0L) per metering cycle in accordance with ASME A112.18.1/CSA B125.1.

Sec. 202. A new Subsection 94.411.2.3 of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.411.2.3. Flushometer Valve Activated Water Closets.** Flushometer valve activated water closets shall have a maximum flush volume of 1.28 gallons (4.85 Lpf) of water per flush in accordance with ASME A112.19.2/CSA B45.1.

Sec. 203. A new Subsection 94.412.1 of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.412.1. Application.** Urinals shall comply with ASME A112.19.1CSA B45.1, ASME A112.19.19, or CSA B45/IAPMO Z124. Wall mounted urinals shall have an average water consumption not to exceed 0.125 gallons (0.47 L) per flush. Other urinals shall have an average water consumption not to exceed 0.125 gallons (0.47 L) per flush.

Sec. 204. A new Subsection 94.414.4 of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.414.4. Commercial Dishwashers.** Water use for commercial dishwashers shall meet the following requirements:

TYPE	HIGH-TEMPERATURE MAXIMUM GALLONS PER RACK	CHEMICAL MAXIMUM GALLONS PER RACK
Conveyer	0.7	0.62
Door	0.95	1.16
Under-counter	0.9	0.98
Note: All installed dishwashers shall be Energy Star® rated.		

Sec. 205. A new Subsection 94.414.5 of Section 94.400.0, Division 4, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.414.5. Domestic Dishwashers.** The maximum water use per washing cycle for domestic dishwasher shall be 5.8 gallons (21.95L).

Sec. 206. Section 94.500.0, Division 5, Article 4, Chapter IX of the Los Angeles Municipal Code is amended to read as follows:

Chapter 5 of the 2016 CPC is adopted by reference.

Sec. 207. The first sentence of Section 94.600.0, Division 6, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 6 of the 2016 CPC is adopted by reference.

Sec. 208. Subsections 94.610.4.1, 94.610.4.1.1, 94.610.4.1.2, 94.610.4.1.3 of Division 6, Article 4, Chapter IX of the LAMC are deleted in their entirety.

Sec. 209. Section 94.700.0, Division 7, Article 4, Chapter IX of the Los Angeles Municipal Code is amended to read as follows:

Chapter 7 of the 2016 CPC is adopted by reference.

Sec. 210. The title of Division 8, Article 4, Chapter IX of the LAMC is amended to read as follows:

## **ARTICLE 4, DIVISION 8**

### **INDIRECT WASTES**

Sec. 211. Section 94.800.0, Division 8, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 8 of the 2016 CPC is adopted by reference.

Sec. 212. Section 94.900.0, Division 9, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 9 of the 2016 CPC is adopted by reference.

Sec. 213. Section 94.1000.0, Division 10, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 10 of the 2016 CPC is adopted by reference.

Sec. 214. Section 94.1100.0, Division 11, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 11 of the 2016 CPC is adopted by reference with the following exceptions: CPC Section 1101.12.2.2., 1101.12.2.2.2, 1101.14 and 1101.16.2 are not adopted and in lieu LAMC Paragraph 91.1101.12.2.2, and Subdivision 94.1101.14 are added.

Sec. 215. Subsection 94.1101.11.2.2 of Section 94.1100.0, Division 11, Article 4, Chapter IX of the LAMC is deleted in its entirety.

Sec. 216. A new Subsection 94.1101.12.2.2 is added to Section 94.1100.0, Division 11, Article 4, Chapter IX of the LAMC to read as follows:

**94.1101.12.2.2. Secondary Roof Drain.** Secondary roof drains shall be provided. The secondary roof drains shall be located not less than 2 inches (50.8mm) above the roof surface. The maximum height of the roof drains shall be a height to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by CPC Section 1101.12.1. The secondary roof drains shall connect to a piping system in accordance with CPC Section 1101.12.2.2.1.

Sec. 217. Subsection 94.1101.13 of Section 94.1100.0, Division 11, Article 4, Chapter IX of the LAMC is deleted in its entirety.

Sec. 218. A new Subsection 94.1101.14 is added to Section 94.1100.0, Division 11, Article 4, Chapter IX of the LAMC is added to read as follows:

**94.1101.14. Rainwater Sumps.** All rain water shall drain by gravity to a place of disposal satisfactory to the Department. If the rainwater cannot be drained by gravity, discharge into a sump may be permitted. Rainwater sumps serving “public use” occupancy buildings shall be provided with dual pumps arranged to function alternatively in case of overload or mechanical failure. Pumps rated 600 V or less shall comply with UL 778 and shall be installed in accordance with the manufacturer’s installation instructions.

Sec. 219. Section 94.1200.0, Division 12, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 12 of the 2016 CPC is adopted by reference and LAMC Section 94.1217.0 is added.

Sec. 220. Sections 94.1201.0 through 94.1216.0 of Division 12, Article 4, Chapter IX of the LAMC are deleted in their entirety.

Sec. 221. Section 94.1300.0, Division 13, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 13 of the 2016 CPC is not adopted.

Sec. 222. The title of Division 14, Article 4, Chapter IX of the LAMC is amended to read as follows:

#### **ARTICLE 4, DIVISION 14**

#### **FIRESTOP PROTECTION**

Sec. 223. Section 94.1400.0, Division 14, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 14 of the 2016 CPC is not adopted.

Sec. 224. The title of Division 15, Article 4, Chapter IX of the LAMC is amended to read as follows:

#### **ARTICLE 4, DIVISION 15**

#### **ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS**

Sec. 225. Section 94.1500.0, Division 15, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 15 of the 2016 CPC is adopted by reference.

Sec. 226. The title of Division 16, Article 4, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 4, DIVISION 16**

**NONPOTABLE RAINWATER CATCHMENT SYSTEMS**

Sec. 227. Section 94.1600.0, Division 16, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 16 of the 2016 CPC is adopted by reference.

Sec. 228. A new Division 16A is added to Article 4, Chapter IX of the LAMC to read as follows:

**ARTICLE 4, DIVISION 16A**

**NON-POTABLE WATER REUSE SYSTEMS**

**SEC. 94.1600A.0. BASIC PROVISIONS.**

Chapter 16A of the 2016 CPC is adopted by reference.

Sec. 229. The title of Division 17, Article 4, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 4, DIVISION 17**

**REFERENCED STANDARDS**

Sec. 230. Section 94.1700.0, Division 17, Article 4, Chapter IX of the LAMC is amended to read as follows:

Chapter 17 of the 2016 CPC is adopted by reference.

Sec. 231. The title of Division 18, Article 4, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 4, DIVISION 18**

**UNIFORM SOLAR ENERGY AND HYDRONICS CODE**

Sec. 232. Section 94.1800.0, Division 18, Article 4, Chapter IX of the LAMC is amended to read as follows:

The 2015 Uniform Solar Energy and Hydronics Code is adopted by reference, except Chapters 1, 8, 9 and the Appendices are not adopted.

Sec. 233. Section 94.1900.0, Division 19, Article 4, Chapter IX of the LAMC is amended to read as follows:

The 2015 Uniform Swimming Pool, Spa, and Hot Tub Code is adopted by reference, except Chapter 1 is not adopted.

Sec. 234. Sections 94.2001.0, 94.2002.0, 94.2003.0, 94.2004.0 and 94.2007.0, of Division 20, Article 4, Chapter IX of the LAMC are deleted in their entirety.

Sec. 235. Section 94.2010.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2010.0.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 13-2016 is adopted by reference.

**94.2010.1.** Comply with the fire sprinkler provisions in Chapters 4 and 9 of the 2016 California Building Code as they pertain to sprinkler systems.

**94.2010.2.** NFPA 13-2016 Section 3.3.26 is added to read as follows:

**3.3.26. Water Curtain** is a line of closely spaced fire sprinklers (or a single sprinkler) aligned adjacent to openings to keep fire from penetrating those openings.

**94.2010.3.** NFPA 13-2016 Section 8.15.4.5 is added to read as follows:

**8.15.4.5.** Water curtains shall consist of closely spaced sprinklers in combination with draft stops. The draft stops shall be located immediately adjacent to the opening shall be at least 18 inches (47.2 mm) deep and shall be of noncombustible or limited-combustible material. Sprinklers shall be spaced not more than 6 feet (1929.8 mm) apart and placed 6 to 12 inches (152.4 mm to 304.8 mm) from the draft stop on the side away from the opening. Where sprinklers are closer than 6 feet (1828.8 mm), cross baffles shall be provided in accordance with NFPA 13-2016 Section 8.6.3.4.2.

**94.2010.4.** NFPA 13-2016 Section 8.2.4.5 is added to read as follows:

**Locations.** Floor control valves shall be within a stairway enclosure or within the vestibule or on the access balcony of a smoke proof enclosure.

**EXCEPTIONS:**

1. In buildings with three or fewer stories or where there is no stairway that serves a floor, control valves may be located elsewhere on the floor level.
2. Unenclosed stairways in parking garages.

**94.2010.5.** NFPA 13-2016 Section 11.3.3.5 is added to read as follows:

**11.3.3.5.** Water curtains shall be hydraulically calculated in accordance with NFPA 13-2016 Section 11.3.

Sec. 236. Sections 94.2011.0 and 94.2012.0 of Division 20, Article 4, Chapter IX of the Los Angeles Municipal Code are deleted in their entirety.

Sec. 237. Section 94.2013.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2013.0. NFPA 13R.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 13R-2016 is adopted by reference.

**94.2013.1.** Comply with the fire sprinkler provisions in Chapters 4 and 9 of the 2016 California Building Code as they pertain to sprinkler systems in residential occupancies within the scope of NFPA 13R-2016.

Sec. 238. Section 94.2014.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2014.0. NFPA 13D.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 13D-2016 is adopted by reference.

**94.2014.1.** Comply with the fire sprinkler provisions in Chapters 4 and 9 of the 2016 California Building Code as they pertain to sprinkler systems in residential occupancies within the scope of NFPA 13D-2016.

Sec. 239. Section 94.2020.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2020.0. NFPA 14.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 14-2016 is adopted by reference.

**94.2020.1.** Comply with the fire sprinkler provisions in Chapters 4, 9 and 33 of the 2016 California Building Code as they pertain to NFPA 14-2016.

**94.2020.2.** NFPA 14-2016 section 6.4.5.3.1 is hereby added to read as follows:

**6.4.5.3.1.** Where the Fire Department inlet connection does not serve the entire building, the portion served shall be suitably identified.

**94.2020.3.** NFPA 14-2016 Section 9.1.5 is hereby amended to read as follows:

**9.1.5.** Water supplies from the following sources shall be permitted:

1. A public waterworks system where pressure and flow rate are adequate;
2. Automatic fire pumps connected to an approved water source in accordance with NFPA 20-2016, Standard for the Installation of Stationary Pumps for Fire Protection.

**94.2020.4. Pressure Regulator Valve Test.**

**94.2020.4.1. Test Required.** When required by the Department, 2 ½ inch (63.5 mm) pressure regulator valves installed on standpipe outlets shall be tested for proper operation at a flow of 300 g.p.m. with a minimum residual pressure of 125 psi in the presence of a representative of the Department.

**94.2020.4.2. Safety.** Test nozzles and other equipment shall be adequately secured so as to eliminate danger to personnel.

**94.2020.4.3. Opening.** An accessible 2 ½ inch (63.5 mm) capped or plugged test opening shall be installed adjacent to each pressure regulator valve.

**94.2020.4.4. Drain.** The test openings shall drain to a minimum 3 inch (76.2 mm) drain line constructed and installed as required for fire sprinkler drains. The drains shall not discharge where they may cause damage. Where available, drains shall terminate to the fire water storage tank.

**94.2020.4.5. Interconnection.** The test drain shall either be separate or connect to a fire sprinkler drain.

Sec. 240. Section 94.2021.0, Division 20, Article 4, Chapter IX of the LAMC is deleted in its entirety.

Sec. 241. Section 94.2030.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2030.0. NFPA 20 FIREPUMP AND DRIVERS.**

**FIRE PUMP AND DRIVERS.** Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 20-2016 is adopted by reference.

**94.2030.1.** Comply with the fire pump provisions in Chapters 4 and 9 of the 2016 California Building Code.

**94.2030.2.** NFPA 20-2016 Section 4.14.11 is added to read as follows:

**4.14.11. Fire Department Connections.** Fire Department connections shall not be connected to on suction side of the pump.

**94.2030.3.** The discharge from the test header shall terminate to the fire storage tank when available.

Sec. 242. Section 94.2040.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2040.0. NFPA 24 INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 24-2016 is adopted by reference.

**94.2040.1.** Comply with the provisions in Chapter 9 of the 2016 California Building Code as it pertains to the Installation of private fire service mains and their appurtenances.

Sec. 243. Section 94.2050.0, Division 20, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 94.2050.0. NFPA 22 FIRE PROTECTION TANKS.**

Chapter 35 of the 2016 California Building Code to the extent it adopts and amends NFPA 22-2016 is adopted by reference.

**94.2050.1.** Comply with the fire tank provisions in Chapters 4 and 9 of the 2016 California Building Code as it pertains to NFPA 22-2016.

**94.2050.2. Water Tanks in High-Rise Buildings.**

1. One or more water tanks shall be installed to serve the fire sprinklers and standpipes in a high-rise building. No tanks shall serve more than one building, however, one water service may supply tanks for more than one building, structure or tower.

2. The tank shall be supplied from the City water main via a fill line. The fill line shall be sized to replenish the water in the tank at a rate equal to, or greater than, the required fire pump capacity. The fill line bypass shall be provided around all fill lines with a shut off valve that is normally closed. Means shall be provided to flow test the automatic fill lines.

3. The capacity of the tank shall be based on the required standpipe demand capacity for the duration as specified in Table 11.2.3.1.2 of the 2016 California Building Code or the requirements in Section 403.3.3 of the 2016 California Building Code, whichever is greater.

Sec. 244. Section 94.2060.0, Division 20, Article 4, Chapter IX of the LAMC is deleted in its entirety.

Sec. 245. Section 94.2100.0, Division 21, Article 4, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **SEC. 94.2100.0. BASIC PROVISIONS.**

Appendices B, D, H, I, and J of the 2016 California Plumbing Code are adopted by reference. Appendix C of the 2016 California Plumbing Code is not adopted, and Appendix A of the 2016 California Plumbing Code is adopted by reference with the following amendment:

**A 104.1. Residual Pressures.** Decide what is the desirable minimum residual pressure that shall be maintained at the highest fixture in the supply system. The available residual pressure shall be not less than 15 (psi) (103 kPa) Where fixtures, fixture fittings or both are installed that require residual pressure exceeding 15 psi (103 kPa), that minimum residual pressure shall be provided.

Sec. 246. A new Section 95.100 is added to Division 1, Article 5, Chapter IX of the LAMC to read as follows:

#### **SEC. 95.100. BASIC PROVISIONS.**

Chapter 1 of the 2016 California Mechanical Code (CMC) is not adopted.

Sec. 247. Subsection 95.101.1 of Section 95.101, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.101.1. Title.** This article is a portion of the Los Angeles Municipal Code and shall be known as the Los Angeles Mechanical Code. The abbreviation "CMC" shall mean and refer to the 2016 Edition of the California Mechanical Code. References to "LAMC" or "Code" shall mean the Los Angeles Municipal Code.

Sec. 248. Subsection 95.101.2 of Section 95.101, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.101.2. Purpose.** The purpose of this article is to safeguard life, health, property and public welfare by regulating the design, construction, installation, alteration, repair, quality of materials, location, operation and maintenance of heating, ventilating, air-conditioning and refrigeration equipment and other miscellaneous heat-producing appliances installed in the City. The provisions of this Code are not intended to apply to equipment installed on railroad cars, motor vehicles, aircraft or on shipboards that are not used as permanent occupancies for longer than six months.

Sec. 249. Subsection 95.101.3 of Section 95.101, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.101.3. Scope.** The provisions of this Code shall apply to the addition to or erection, installation, alteration, repair, relocation, replacement, use, or maintenance of heating, ventilation, cooling, refrigeration systems; incinerators; or other miscellaneous heat-producing appliances within this jurisdiction.

Additions, alterations, repairs to, and replacement of equipment or systems shall be in accordance with the provisions for new equipment and systems, except as otherwise provided in LAMC Section 95.102.0.

Sec. 250. A new Subsection 95.101.3.1 is added to Section 95.101, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.101.3.1. Conflicts.** Where, in a specific case, different sections of this Code or referenced standards specify different materials, methods of construction, or other requirements, the most restrictive shall govern as determined by the Authority Having Jurisdiction. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall prevail. [OSHPD 1, 2, 3 &4]

Sec. 251. A new Subsection 95.101.3.1.1 is added to Section 95.101, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.101.3.1.1. Conflicts Between Codes.** Where the requirements within the jurisdiction of this Mechanical Code conflict with the requirements of the Plumbing Code, the Plumbing Code shall prevail.

Sec. 252. A new Subsection 95.101.3.2 is added to Section 95.101, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.101.3.2. Design and Testing.** The design and testing of equipment regulated by this Code shall be subject to the approval of the Authority Having Jurisdiction.

Sec. 253. A new Subsection 95.101.3.3 is added to Section 95.101, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.101.3.3. Appendices.** The provisions in the appendices are intended to supplement the requirements of this Code and shall not be considered part of this Code unless formally adopted as such.

Sec. 254. The title of Section 95.102, Division 1, Article 5, Chapter IX of the LAMC is amended to read as follows:

**SEC. 95.102. APPLICATION TO EXISTING MECHANICAL SYSTEMS.**

Sec. 255. A new Subsection 95.102.1 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.1. Additions, alterations, or Repairs.** Additions, alterations, or repairs shall be permitted to be made to a mechanical system without requiring the existing mechanical system to be in accordance with the requirements of this Code, provided the addition, alteration, or repair is in accordance with that required for a new mechanical system. Additions, alterations, or repairs shall not cause an existing system to become unsafe or create unhealthy or overloaded conditions.

Minor additions, alterations, and repairs to existing mechanical systems shall be permitted to be installed in accordance with the law in effect at the time the original installation was made, where approved by the Authority Having Jurisdiction.

Sec. 256. A new Subsection 95.102.2 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.2. Existing Installations.** Mechanical systems lawfully in existence at the time of the adoption of this Code shall be permitted to have their use, maintenance, or repair continued where the use, maintenance, or repair is in accordance with the original design and location and no hazard to life, health, or property has been created by such mechanical systems.

Sec. 257. A new Subsection 95.102.3 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.3. Changes in Building Occupancy.** Mechanical systems that are a part of a building or structure undergoing a change in use or occupancy, as defined in Article 1, Chapter IX of the LAMC, shall be in accordance with the requirements of this Code that are applicable to the new use or occupancy.

Sec. 258. A new Subsection 95.102.4 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.4. Maintenance.** Mechanical systems, materials, and appurtenances, both existing and new, and parts thereof, shall be maintained in operating condition in accordance with the original design and in a safe and hazard-free condition. Devices or safeguards that are required by this Code shall be maintained in accordance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for maintenance of mechanical systems and equipment. To determine compliance with this subsection, the Authority Having Jurisdiction shall be permitted to cause mechanical systems or equipment to be reinspected.

Sec. 259. A new Subsection 95.102.4.1 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.4.1. Commercial HVAC Systems.** Commercial HVAC systems both existing and new, and parts thereof shall be inspected and maintained in operating condition in accordance with ASHRAE/ACCA 180. The owner or the owner's designated agent shall be responsible for maintenance of mechanical systems and equipment. To determine compliance with this subsection, the Authority Having Jurisdiction shall be permitted to cause a HVAC system to be reinspected.

Sec. 260. A new Subsection 95.102.4.2 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.4.2. Residential HVAC Systems.** Residential HVAC systems both existing and new, and parts thereof shall be inspected in accordance with ACCA 4 QM. The owner or the owner's designated agent shall be responsible for maintenance of mechanical systems and equipment. To determine compliance with this subsection, the Authority having Jurisdiction shall be permitted to cause a HVAC system to be reinspected.

Sec. 261. Subsection 95.102.5 of Section 95.102, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.102.5. Moved Buildings.** Apartment houses and dwellings moved into or within the City and all other buildings moved within the City, may retain the existing heating, ventilation, air-conditioning and refrigeration equipment and other miscellaneous heat-producing appliances, provided the building does not become or continue to be a substandard residential building or a residential building subject to repair. However, existing mechanical equipment, including vents, which is not in good and safe condition and not working properly shall be corrected.

Existing heating, ventilation, air-conditioning and refrigeration equipment and other miscellaneous heat-producing appliances in any building, other than an apartment

house or dwelling, moved from outside the City to inside the City shall comply with all the requirements of this Code.

New heating, ventilating, air-conditioning and refrigeration equipment and miscellaneous heat-producing appliances that are installed in any building relocated into or within the City shall conform to the provisions of this Code.

Sec. 262. A new Subsection 95.102.6 is added to Section 95.102, Division 1, Article 5, Chapter IX of the LAMC to read as follows:

**95.102.6. Existing Buildings.** In existing buildings or premises in which mechanical systems are to be altered, repaired, replaced, or renovated, the Authority Having Jurisdiction has discretionary powers to permit deviation from the provisions of this Code, provided that such proposal to deviate is first submitted for determination in order that health and safety requirements, as they pertain to mechanical, shall be observed.

Sec. 263. Section 95.103, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.103. ALTERNATE MATERIALS AND METHODS OF CONSTRUCTION EQUIVALENCY.**

**95.103.1. General.** Nothing in this Code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this Code. Technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency. The Authority Having Jurisdiction shall have the authority to approve or disapprove the system, method or device for the intended purpose.

Sec. 264. Section 95.105, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.105. TESTING.**

**95.105.1. General.** The Authority Having Jurisdiction shall have authority to require tests, as proof of equivalency.

**95.105.2. Approved Standards.** Tests shall be made in accordance with approved testing standards by an approved testing agency at the expense of the applicant. In the absence of such standards, the Authority Having Jurisdiction shall have the authority to specify the test procedure.

**95.105.3. Request by the Authority Having Jurisdiction.** The Authority Having Jurisdiction shall have the authority to require tests to be made or repeated where there is reason to believe that a material or device no longer is in accordance with the requirements on which its approval was based.

Sec. 265. Subsection 95.106.3 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is deleted in its entirety.

Sec. 266. Subsection 95.106.4 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.106.4. Stop Orders.** Where work is being done contrary to the provisions of this Code, the Authority Having Jurisdiction shall have the authority to order the work stopped by notice in writing served on persons engaged in doing or causing such work to be done, and such persons shall forthwith stop work until authorized by the Authority Having Jurisdiction to proceed with the work.

Sec. 267. Subsection 95.106.5 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.106.5. Authority to Disconnect Utilities in Emergencies.** The Authority Having Jurisdiction or authorized representative shall be permitted to disconnect fuel gas utility service or energy supplies to a building, structure, premises, or equipment regulated by this Code in case of emergency where necessary to eliminate an immediate hazard to life or property. The Authority Having Jurisdiction shall, wherever possible, notify the serving utility, the owner, and the occupant of the building, structure, or premises of the decision to disconnect prior to taking such action, and shall notify such serving utility, owner, and occupant of the building, structure, or premises in writing of such disconnection immediately thereafter.

Sec. 268. Subsection 95.106.6 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.106.6. Authority to Condemn Equipment.** Where the Authority Having Jurisdiction ascertains that an equipment, or portion thereof, regulated by this Code has become hazardous to life, health, or property, it shall order in writing that the equipment either be removed or restored to a safe or sanitary condition. The written notice shall contain a fixed time limit for compliance with such order. Persons shall not use or maintain defective equipment after receiving a notice.

Where equipment or an installation is to be disconnected, written notice of the disconnection and causes therefore shall be given within 24 hours to the serving utility, owner, and occupant of the building, structure, or premises. Where equipment is maintained in violation of this Code, and in violation of a notice issued pursuant to the provisions of this section, the Authority Having Jurisdiction shall institute an action to prevent, restrain, correct, or abate the violation.

Sec. 269. Subsection 95.106.7 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.106.7. Connection After Order to Disconnect.** Persons shall not make connections from an energy, fuel, or power supply nor supply energy or fuel to any equipment regulated by this Code that has been disconnected or ordered to be disconnected by the Authority Having Jurisdiction until it has authorized the reconnection and use of such equipment.

Sec. 270. Subsection 95.106.8 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is deleted in its entirety.

Sec. 271. Subsection 95.106.9 of Section 95.106, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**95.106.9. Cooperation of Other Officials and Officers.** The Authority Having Jurisdiction shall be permitted to request the assistance and cooperation of other officials of this jurisdiction so far as required in the discharge of the duties required by this Code or other pertinent law or ordinance.

Sec. 272. Section 95.107, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **SEC. 95.107. UNSAFE EQUIPMENT.**

**95.107.1. General.** Equipment regulated by this Code that is unsafe or that constitutes a fire or health hazard or is otherwise dangerous to human life is, for the purpose of this section, unsafe. Use of equipment regulated by this Code constituting a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage, or abandonment is, for the purpose of this section, an unsafe use. Unsafe equipment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition, or removal in accordance with procedures as may be adopted by this jurisdiction. As an alternative, the Authority Having Jurisdiction or other employee or official of this jurisdiction, as designated by the governing body, shall be permitted to institute other action to prevent, restrain, correct, or abate the violation.

Sec. 273. Section 95.117, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

#### **SEC. 95.117. UNCONSTITUTIONAL.**

**95.117.1. Validity of Code.** Where a section, subsection, sentence, clause, or phrase of this Code is, for a reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this Code. The legislative body hereby declares that it would have passed this Code, and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, and phrases are declared unconstitutional.

Sec. 274. Section 95.118, Division 1, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.118. VALIDITY.**

**95.118.1. Code.** Where a provision of this Code, or the application thereof to a person or circumstance, is held invalid, the remainder of the Code, or the application of such provision to other persons or circumstances, shall not be affected.

Sec. 275. A new Section 95.200 is added to Division 2, Article 5, Chapter IX of the LAMC to read as follows:

**SEC. 95.200. BASIC PROVISIONS.**

Chapter 2 of the 2016 California Mechanical Code (CMC) is adopted by reference with the following exceptions: CMC Sections 203, 204, 205, 206, 207, 208, 215, 217, 219 and 221 are not adopted and, in lieu, LAMC Sections 95.203, 95.204, 95.205, 95.206, 95.207, 95.208, 95.215, 95.217, 95.219 and 95.221 are added as provided in this article.

Sec. 276. Section 95.203.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.203. A.**

Section 203.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**AUTHORITY HAVING JURISDICTION**

The following definitions are added:

**ADMINISTRATIVE AUTHORITY.** The Superintendent of Building or an authorized agent.

**APPLICANT.** The person signing the application and paying the fees.

**APPRENTICE.** A person who is enrolled in an apprenticeship program approved by the Department of Industrial Relations of the State of California.

**AUTHORITY HAVING JURISDICTION.** The City of Los Angeles Department of Building and Safety.

Sec. 277. Section 95.204.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.204. B.**

Section 204.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**BUILDING CODE**

The following definitions are added:

**BOARD.** The Board of Building and Safety Commissioners of the City of Los Angeles.

**BUILDING CODE.** The City of Los Angeles Building Code, set forth in Article 1, Chapter IX of the Los Angeles Municipal Code.

Sec. 278. Section 95.205.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.205. C.**

Section 205.0 of the CMC is adopted by reference.

The following definitions are added:

**CERTIFICATE OF QUALIFICATION.** A Certificate of Qualification as a maintenance supervisor or air balancer as issued by the Department.

**CERTIFICATE OF REGISTRATION.** A Maintenance Certificate of Registration as issued by the Department.

**COMPRESSOR, COMFORT-COOLING.** A compressor, which is a portion of a comfort-cooling system or a comfort-cooling unit.

Sec. 279. Section 95.206.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.206. D.**

Section 206.0 of the CMC is adopted by reference except that the CMC definition of the following term is not adopted:

**DEPARTMENT**

The following definition is added:

**DEPARTMENT.** The Department of Building and Safety of the City of Los Angeles.

Sec. 280. Section 95.207.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.207. E.**

Section 207.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**ELECTRICAL CODE**

The following definition is added:

**ELECTRICAL CODE.** The City of Los Angeles Electrical Code, set forth in Article 3, Chapter IX of the Los Angeles Municipal Code.

Sec. 281. Section 95.208.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.208. F.**

Section 208.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**FIRE CODE**

The following definition is added:

**FIRE CODE.** The City of Los Angeles Fire Code, set forth in Article 7, Chapter V of the Los Angeles Municipal Code.

Sec. 282. Section 95.209.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.209. G.**

Section 209.0 of the CMC is adopted by reference.

Sec. 283. Section 95.210.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.210. H.**

Section 210.0 of the CMC is adopted by reference.

Sec. 284. Section 95.215.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.215. M.**

Section 215.0 of the CMC is adopted by reference.

The following definitions are added:

**MAINTENANCE CERTIFICATE OF REGISTRATION.** A certificate issued to the owner or occupant of specified premises for the sole purpose of adding to, altering, maintaining or repairing existing heating, ventilating, air-conditioning, or refrigeration equipment on the premises.

**MAINTENANCE SUPERVISOR.** Comfort heating and cooling maintenance supervisor or a refrigeration maintenance supervisor.

Sec. 285. Section 95.217.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.217. O.**

Section 217.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**OCCUPANCY CLASSIFICATION**

The following definition is added:

**OCCUPANCY CLASSIFICATION.** Classifications are defined in the Los Angeles Building Code at Article 1, Chapter IX of the Los Angeles Municipal Code.

Sec. 286. Section 95.219.0, Division 2, Article 5, Chapter IX of the LAMC is amended to read as follows:

**SEC. 95.219. Q.**

Section 219.0 of the CMC is adopted by reference, except that the CMC definition of the following term is not adopted:

**QUALIFIED**

The following definition is added:

**QUALIFIED INSTALLER** is:

(A) A person who holds a valid contractor's license in the proper classification issued by the State of California; or

(B) A person who holds a valid Maintenance Certificate of Registration issued pursuant to the provisions of this Code; or

(C) A person who is the owner of a single-family dwelling and has demonstrated to the satisfaction of the Department his or her qualifications to satisfactorily perform plumbing work in the dwelling which is occupied by the owner, and their accessory buildings, provided that all of the following conditions are met:

(1) The work is performed prior to sale of the dwelling.

(2) The homeowner has actually resided in the residence for the 12 months prior to completion of the work.

(3) The homeowner has not availed himself or herself of this exemption on more than two structures during any three year period; or

(D) A person who is employed by a governmental agency that is required to comply with the provisions of this Code, and who is qualified, as determined by the Department, to supervise or control any work regulated by this Code.

Sec. 287. Section 95.220.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.220. R.**

Section 220.0 of the CMC is adopted by reference.

Sec. 288. Section 95.223.0, Division 2, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.223. U.**

Section 223.0 of the CMC is adopted by reference.

Sec. 289. Section 95.300, Division 3, Article 5, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 95.300. BASIC PROVISIONS.**

Chapter 3 of the CMC is hereby adopted by reference with the following amendment:

**311.3. Prohibited Source.** Outside or return air for heating or cooling air systems shall not be taken from the following locations:

- (1) less than 10 feet (3048 mm) in distance from an appliance vent outlet, a vent opening of a plumbing drainage system, or the discharge outlet of an exhaust fan or a medical-surgical vacuum outlet, unless the outlet is 3 feet (914 mm) above the outside-air inlet.

Sec. 290. Section 95.315, Division 3, Article 5, Chapter IX of the LAMC is deleted in its entirety.

Sec. 291. The title to Division 4, Article 5, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 5, DIVISION 4**

**VENTILATION AIR**

Sec. 292. The title to Division 10, Article 5, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 5, DIVISION 10**

**BOILERS AND PRESSURE VESSELS**

Sec. 293. The title to Division 15, Article 5, Chapter IX of the LAMC is amended to read as follows:

**ARTICLE 5, DIVISION 15**

**SOLAR ENERGY SYSTEMS**

Sec. 294. Section 95.1800, Division 18, Article 5, Chapter IX of the LAMC is amended to read as follows:

Appendices B and C of the CMC are adopted by reference. Appendices A, D, E, F, and G of the CMC are not adopted.

Sec. 295. Subsection 99.01.101.1 of Section 99.01.101, Division 1, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.01.101.1. Title.** These regulations shall be known as the Los Angeles Green Building Code and may be cited as such and will be referred to herein as

“this Code.” The Los Angeles Green Building Code is Article 9 of a total of 9 Articles of Chapter IX of the Los Angeles Municipal Code, and adopts by reference the California Green Building Standards Code (CALGreen) (Part 11, Title 24, of the California Code of Regulations (CCR)) except as amended herein. Whenever the word “City” is used, it shall mean the City of Los Angeles. Whenever the word “Department” is used, it shall mean the Department of Building and Safety of the City of Los Angeles.

Sec. 296. Section 99.02.200, Division 2, Article 9, Chapter IX of the LAMC is amended to read as follows:

Chapter 2 of the 2016 California Green Building Standards Code is adopted by reference except as amended herein.

Sec. 297. Section 99.03.300, Division 3, Article 9, Chapter IX of the LAMC is amended to read as follows:

Chapter 3 of the 2016 California Green Building Standards Code is adopted by reference except as amended herein.

Sec. 298. Subsection 99.03.303.1.1 of Section 99.03.303, Division 3, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.03.303.1.1. Tenant Improvements.** The provisions of this Code shall apply to the initial tenant improvements to a project and to any future alteration that falls under the scope of LAMC Subsection 99.01.101.3.

Sec. 299. Section 99.03.304, Division 3, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 300. Section 99.04.100, Division 4, Article 9, Chapter IX of the LAMC is amended to read as follows:

Chapter 4 of the 2016 California Green Building Standards Code is adopted by reference except as amended herein.

Sec. 301. Subsection 99.04.106.4 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 302. Subsection 99.05.106.4.1 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 303. Subsection 99.04.106.4.1.1 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 304. Subsection 99.04.106.4.2 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.106.4.2. New Multi-family Dwellings and “R” Occupancies Other Than One- and Two-family Dwellings and Townhouses.** Where multi-family dwelling units and other “R” occupancies not covered under LAMC Paragraph 99.04.106.4.2.1 are constructed on a building site, 5% of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Sec. 305. Subsection 99.04.106.4.2.1 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.106.4.2.1. Electric Vehicle Charging Spaces (EV spaces).** [N] Construction documents shall indicate the locations of proposed EV spaces and EV charging stations. For buildings with 17 or more dwelling units, at least one of the required EV spaces shall be located in a common use area, equipped with an EV charging station and available for use by all residents.

When EV chargers are installed, EV spaces required by LAMC Paragraph 99.04.106.4.2.2, Item 3, shall comply with at least one of the following options:

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the Los Angeles Building Code, to allow use of the EV charger from the accessible parking space.
2. The EV space shall be located on an accessible route to the building, as defined in the Los Angeles Building Code.

Sec. 306. Subsection 99.04.106.4.2.2 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.106.4.2.2. Electric Vehicle Charging Space (EV space) Dimensions.** [N] The EV spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).
2. The minimum width of each EV space shall be 9 feet (2743 mm).
3. For buildings with 17 or more dwelling units, one in every 25 EV spaces, but not less than one, shall also have a minimum 8 foot (2438 mm) wide aisle. A 5 foot (1524 mm) wide aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

- a. Surface slope for the EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

Sec. 307. Subsection 99.04.106.4.2.3 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 308. A new Subsection 99.04.106.4.2.4 is added to Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC to read as follows:

**99.04.106.4.2.4. Multiple EV Spaces Required.** Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV charging stations. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE, unless otherwise permitted by the Los Angeles Electrical Code. Plan design shall be based upon a 40-ampere minimum branch circuit. Raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Sec. 309. Subsection 99.04.106.5 of Section 99.04.106, Division 4, Article 9, Chapter IX the LAMC is amended in its entirety to read as follows:

**99.04.106.5. Cool Roof for Reduction of Heat Island Effect.** Roofing material shall comply with both LAMC Subdivisions 99.04.106.5.1 and 99.04.106.5.2, or comply with LAMC Subdivision 99.04.106.5.3.

**EXCEPTIONS:**

1. Roof repair as defined in Section 100.1(b) of the California Energy Code; or
  2. Roof replacement when the roof area being replaced is equal to or less than 50% of the total roof area;
  3. Roof replacement where solar systems are being installed;
- or
4. Additions resulting in less than 500 square feet of added roof area or less than 50% of the total roof area, whichever is greater.

Sec. 310. Subsection 99.04.106.5.3 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.106.5.3. Solar Reflectance Index.** Roofing materials shall have a 3 year aged Solar Reflectance Index equal to or greater than those specified in LAMC Table 99.04.106.5. Solar Reflectance Index (SRI) shall be determined in accordance with ASTM E1980. Calculation of aged SRI may be based on either tested or calculated 3 year aged values of solar reflectance.

Sec. 311. Table 4.106.5 of Subsection 99.04.106.5.3 of Section 99.04.106, Division 4, Article 9, Chapter IX of the LAMC is amended to read as follows:

**TABLE 99.04.106.5**

<b>ROOF SLOPE</b>	<b>MINIMUM 3-YEAR AGED SOLAR REFLECTANCE</b>	<b>THERMAL EMITTANCE</b>	<b>3 YEAR AGED SOLAR REFLECTANCE INDEX (SRI)</b>
< 2:12	0.63	0.75	75
≥ 2:12	0.20	0.75	16

Sec. 312. Subsection 99.04.211.4 of Section 99.04.211, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.211.4. Solar Ready Buildings.** Buildings shall comply with the following:

1. All one- and two-family dwellings, shall comply with Sections 110.10(b)1A, 110.10(b)2, 110.10(b)3, 110.10(b)4, 110.10(c), 110.10(d) and 110.10(e) of the California Energy Code (CCR, Title 24, Part 6).
2. All buildings, other than one- and two-family dwellings, shall comply with Sections 110.10(b) through 110.10(d) of the California Energy Code (CCR, Title 24, Part 6).

**EXCEPTIONS:**

1. Additions having less than 2,000 sq. ft. of new roof area.
2. Alterations.

Sec. 313. Subsection 99.04.211.5 of Section 99.04.211, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 314. Subsection 99.04.303.4.1, and Tables 99.04.303.4.1 and 99.04.303.4.2, of Section 99.04.303, Article 9, Chapter IX of the LAMC are amended in their entirety to read as follows:

**99.04.303.4.1. Performance Method.** A calculation demonstrating a 20% reduction in the building “water use baseline”, as established in LAMC Table 99.04.303.4.1, shall be provided.

**EXCEPTIONS:**

1. Projects with plumbing fixtures and fittings that comply with the maximum flow rate values in LAMC Table 99.04.303.4.2.
2. Additions and alterations to buildings where the new fixtures and fittings comply with the maximum flow rate values in LAMC Table 99.04.303.4.2.
3. Buildings utilizing recycled water in accordance with LAMC Subsection 99.04.305.2.
4. Replacement of plumbing fixtures and fittings.

**TABLE 99.04.303.4.1  
WATER USE BASELINE<sup>3</sup>**

<b>FIXTURE TYPE</b>	<b>BASELINE FLOW RATE</b>	<b>DURATION</b>	<b>DAILY USES</b>	<b>OCCUPANTS<sup>2</sup></b>
Showerheads	2.0 gpm @ 80 psi	8 min.	1	X <sup>2a</sup>
Lavatory Faucets,	1.2 gpm @ 60 psi	.25 min.	3	X
Lavatory Faucets, Common/Public	0.5 gpm @ 60 psi	.25 min.	3	X
Kitchen Faucets	1.8 gpm @ 60psi	4 min.	1	X <sup>2b</sup>
Metering Faucets	0.25 gallons/cycle		3	X
Water Closets	1.28 gallons/flush	1 flush	1 male <sup>1</sup> 3 female	X
Urinals	0.125 gallons/flush	1 flush	2 male	X

Fixture "Water Use" = Flow rate X Duration X Occupants X Daily uses

1. The daily use number shall be increased to three if urinals are not installed in the room.
2. Refer to Table A, Chapter 4 of the California Plumbing Code, for occupant load factors.
  - a. Shower use by occupants depends on the type of use of a building or portion of a building. For example, the total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users.
  - b. Kitchen faucet use is determined by the occupant load of the area served by the fixture.
3. Use Worksheet WS-1 of the 2016 CALGreen Code to calculate baseline water.
4. \* *Kitchen faucets may temporarily increase the flow to 2.2 gpm at 60psi, and must default to 1.5gpm at 60psi. This requirement does not apply to a faucet in commercial kitchens or in buildings that have water closets with a maximum flush rate of 1.06 gpf installed throughout.*

**TABLE 99.04.303.4.2  
WATER REDUCTION FIXTURE FLOW RATES**

FIXTURE TYPE	MAXIMUM ALLOWABLE FLOW RATE
Kitchen Faucets*	1.5 gpm @ 60 psi
Metering Faucets	0.2 gallons/cycle
Showerheads	1.8 gpm @ 80 psi
Clothes Washers	ENERGY-STAR certified
Dishwashers	ENERGY-STAR certified

Sec. 315. Subsection 99.04.304.1.1 of Section 99.04.304, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 316. Subsection 99.04.304.1.2 of Section 99.04.304, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 317. Subsection 99.04.304.2 of Section 99.04.304, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 318. Subsection 99.04.305.1 of Section 99.04.305, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.305.1. Graywater Ready.** Waste piping shall be arranged to permit the discharge from the clothes washer, bathtub, showers, and bathroom/restroom wash basins to be used for a future graywater irrigation system. The flow from the fixtures shall be piped separately, and shall, at a minimum, be adequate to supply the irrigation demand. The point of connection between the graywater piping and other waste piping shall be accessible (as defined in LAMC Section 99.02.202) and provided with signage that is satisfactory to the Department.

## EXCEPTIONS:

1. Buildings with a graywater system or water reuse system.
2. Sites with landscape areas not exceeding 500 square feet.
3. Projects where graywater systems are not permitted due to geological conditions.
4. Additions and alterations that use the existing building drain conditions.

Sec. 319. Subsection 99.04.406.1 of Section 99.04.406, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 320. Subsection 99.04.408.1 of Section 99.04.406, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.408.1. Construction Waste Management.** Comply with LAMC Section 66.32, et seq. of the Los Angeles Municipal Code.

Sec. 321. Section 99.04.410, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 322. Subsection 99.04.504.1 of Section 99.04.504, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 323. Subsection 99.04.504.2.4 of Section 99.04.504, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 324. Subsection 99.04.504.5.1 of Section 99.04.504, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 325. Subsection 99.04.504.6 of Section 99.04.504, Division 4, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.04.504.6. Filters.** In mechanically ventilated buildings within 1,000 feet (304.8 m) of a freeway, provide regularly occupied areas of the building with air filtration media for outside and return air that provides a Minimum Efficiency Reporting Value (MERV) of 13. Filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Sec. 326. Subsection 99.04.505.2.1 of Section 99.04.505, Division 4, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 327. Section 99.05.100, Division 5, Article 9, Chapter IX of the LAMC is amended to read as follows:

Chapter 5 of the 2016 California Green Building Standards Code is adopted by reference except as provided in this article.

Sec. 328. Subsection 99.05.106.1 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 329. Subsection 99.05.106.1.1 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 330. Subsection 99.05.106.1.2 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 331. Subsection 99.05.106.5.3 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.106.5.3. Electric Vehicle (EV) Charging. [N]** Construction shall comply with LAMC Paragraphs 99.05.106.5.3.1 through 99.05.106.5.3.5 to facilitate the installation of electric vehicle supply equipment (EVSE). When EVSEs is/are installed, it shall be in accordance with the Los Angeles Building Code, the Los Angeles Electrical Code and as follows:

Sec. 332. Subsection 99.05.106.5.3.1 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.106.5.3.1. Single EV Charging Space Requirements. [N]** When only a single charging space is required per LAMC Table 99.05.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the Los Angeles Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240 volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1".
4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.

5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40 ampere dedicated branch circuit for the future installation of the EVSE.

Sec. 333. Subsection 99.05.106.5.3.2 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.106.5.3.2. Multiple EV Charging Space Requirements. [N]** When multiple charging spaces are required per LAMC Table 99.05.106.5.3.3, raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the Los Angeles Electrical Code. Construction plans and specifications shall include, but are not limited to the following:

1. The type and location of the EVSE.
2. The raceway shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40 ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage, unless otherwise permitted by the Los Angeles Electrical Code.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

Sec. 334. A new Subsection 99.05.106.5.3.2.1 is added to Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC to read as follows:

**99.05.106.5.3.2.1. Charging Station Requirements. [N]** When charging stations are required per LAMC Table 99.05.106.5.3.3, they shall be installed within the EV charging space(s) and in accordance with the Los Angeles Electrical Code.

Sec. 335. Subsection 99.05.106.5.3.3 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.106.5.3.3. EV Charging Spaces and EV Charging Station Calculations. [N]** LAMC Table 99.05.106.5.3.3 shall be used to determine if single EV or multiple EV

charging space(s) requirements apply for the installation of EVSE and if EV charging stations are required to be installed.

**EXCEPTIONS:** On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

1. Where there is insufficient electrical supply.
2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of LAMC Subdivision 99.05.106.5.3 may adversely impact the construction cost of the project.

Sec. 336. A new Table 99.05.106.5.3.3 is added to Subsection 99.05.106.5.3.3 of Section 99.05.106, Article 9, Chapter IX of the LAMC to read as follows:

**TABLE 99.05.106.5.3.3**

Total number of actual parking spaces	Number of required EV charging spaces	Number of required EV charging stations
0-9	0	0
10-25	1	0
26-50	2	0
51-75	4	1
76-100	5	2
101-150	7	3
151-200	10	4
201 and over	6% Percent of total <sup>1</sup>	4 + (1 for every additional 500 spaces after the first 200)

<sup>1</sup> Calculation for spaces shall be rounded up to the nearest whole number.

Sec. 337. Subsection 99.05.106.5.3.4 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 338. Subsection 99.05.106.8 of Section 99.05.106, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety, but Table 5.106.8 [N] is not deleted.

Sec. 339. Subsection 99.05.211.1 of Section 99.05.211, Division 5, Article 9, Chapter IX of the LAMC is amended to read as follows:

**99.05.211.1. Solar Ready Buildings.** Comply with California Energy Code Section 110.10.

**EXCEPTIONS:**

1. Additions having less than 2,000 sq. ft. of new roof area;
2. Alterations.

Sec. 340. Subsection 99.05.303.2 and Tables 99.05.303.2.2 and 99.05.303.2.3 of Section 99.05.303, Division 5, Article 9, Chapter IX of the LAMC are amended in their entirety to read as follows:

**99.05.303.2. Water Reduction.** Each building shall demonstrate a 20% overall reduction in potable water use. The reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the Los Angeles Building Code (LABC). To comply with this subsection, a calculation demonstrating a 20% reduction in the building "water use baseline," as established in LAMC Table 99.05.303.2.2, shall be provided.

**EXCEPTIONS:**

1. New buildings having a 2" or less water supply and having fixtures and fittings that comply with the maximum flow rate values shown in LAMC Table 99.05.303.2.3.
2. Additions and alterations to buildings with fixtures and fittings complying with the maximum flow rate values shown in LAMC Table 99.05.303.2.3. This provision shall apply only to new fixtures.
3. Buildings utilizing recycled water in accordance with LAMC Subsection 99.05.305.2.
4. Replacement of plumbing fixtures and fittings.

**TABLE 99.05.303.2.2  
WATER USE BASELINE<sup>3</sup>**

<b>FIXTURE TYPE</b>	<b>BASELINE FLOW RATE</b>	<b>DURATION</b>	<b>DAILY USES</b>	<b>OCCUPANTS<sup>2</sup></b>
Showerheads	2.0 gpm @ 80 psi	5 min.	1	X <sup>2a</sup>
Lavatory Faucets, Non-Residential	0.5 gpm @ 60 psi	.25 min.	3	X
Kitchen Faucets	1.8 gpm @ 60psi	4 min.	1	X <sup>2b</sup>
Metering Faucets	0.20 gallons/cycle	.25 min	3	X
Water Closets	1.28 gallons/flush	1 flush	1 male <sup>1</sup> 3 female	X
Urinals	0.125 gallons/flush	1 flush	2 male	X

Fixture "Water Use" = Flow rate X Duration X Occupants X Daily uses

1. The daily use number shall be increased to three if urinals are not installed in the room.
2. Refer to Table A, Chapter 4 of the California Plumbing Code, for occupant load factors.
  - a. Shower use by occupants depends on the type of use of a building or portion of a building. For example, the total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users.
  - b. Kitchen faucet use is determined by the occupant load of the area served by the fixture.
3. Use Worksheet WS-1 of the 2016 CALGreen Code to calculate baseline water use.

**TABLE 99.05.303.2.3  
WATER REDUCTION FIXTURE FLOW RATES**

<b>FIXTURE TYPE</b>	<b>MAXIMUM ALLOWABLE FLOW RATE</b>
Lavatory Faucets, Non-Residential*	0.4 gpm @ 60 psi
Kitchen Faucets**	1.50 gpm @ 60 psi
Showerheads	1.8 gpm @ 80 psi
Dishwashers	ENERGY-STAR certified
Clothes Washers	ENERGY-STAR certified

\* Not required if using nonwater or hybrid urinals throughout the project

\*\* Kitchen faucets may temporarily increase the flow to 2.2 gpm at 60psi, and must default to 1.5gpm at 60psi. This requirement does not apply to a faucet in commercial kitchens.

Sec. 341. Subsection 99.05.303.4 of Section 99.05.303, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 342. Subsection 99.05.303.6 of Section 99.05.303, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.303.6. Standards for Plumbing Fixtures and Fittings.** Plumbing fixtures and fittings shall be installed in accordance with the Los Angeles Plumbing Code, and shall meet the applicable standards referenced in California Plumbing Code Table 1701.1 and in Article 6 of the LAMC.

Sec. 343. Subsection 99.05.304.1 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 344. Subsection 99.05.304.2 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 345. Subsection 99.05.304.2.1 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 346. Subsection 99.05.304.3 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 347. Subsection 99.05.304.3.1 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 348. Subsection 99.05.304.3.2 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 349. Subsection 99.05.304.4 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 350. Subsection 99.05.304.5 of Section 99.05.304, Division 5, Article 9, Chapter IX of the LAMC is renumbered as Subsection 99.05.304.7.

Sec. 351. Subsection 99.05.305.1 of Section 99.05.305, Division 5, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.05.305.1. Graywater Ready.** Waste piping shall be arranged to permit the discharge from the clothes washer, bathtub, showers, and bathroom/restroom wash basins to be used for a future graywater irrigation system. The flow from the fixtures shall be piped separately, and shall, at a minimum, be adequate to supply the irrigation demand. The point of connection between the graywater piping and other waste piping shall be accessible (as defined in LAMC Section 99.02.202) and provided with signage that is satisfactory to the Department.

## EXCEPTIONS:

1. Buildings with a graywater system or water reuse system.
2. Sites with landscape areas not exceeding 500 square feet (46.45 m<sup>2</sup>).
3. Projects where graywater systems are not permitted due to geological conditions.
4. Additions and alterations that use the existing building drain.

Sec. 352. Section 99.05.407 and Subsection 99.05.407.1, of Division 5, Article 9, Chapter IX of the LAMC are deleted in their entirety.

Sec. 353. Section 99.05.410 and Subsections 99.05.410.1 through 99.05.410.4.5.1, of Division 5, Article 9, Chapter IX of the LAMC are deleted in their entirety.

Sec. 354. Subsection 99.05.504.3 of Section 99.05.504, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 355. Subsection 99.05.504.4.3.2 of Section 99.05.504, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 356. Subsection 99.05.504.4.5.3 of Section 99.05.504, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 357. Exception 1 of Subsection 99.05.504.5.3 of Section 99.05.504, Division 5, Article 9, Chapter IX of the LAMC is amended to read as follows:

1. An ASHREA 10% to 15% efficiency filter shall be permitted for an HVAC unit meeting the California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow.

Sec. 358. Subsection 99.05.504.7 of Section 99.05.504, Division 5, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 359. Section 99.05.508 and its Subsections, of Division 5, Article 9, Chapter IX of the LAMC are deleted in their entirety.

Sec. 360. Subsection 99.06.601.1 of Section 99.06.601, Division 6, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**99.06.601.1. General.** Chapter 6 of the 2016 California Green Building Standards Code is adopted in its entirety.

Sec. 361. Section 99.07.101, Division 7, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

Chapter 7 of the 2016 California Green Building Standards Code is adopted in its entirety.

Sec. 362. Section 99.07.702 and its Subsections, of Division 7, Article 9, Chapter IX of the LAMC are deleted in their entirety.

Sec. 363. Section 99.07.703 and Subsection 99.07.703.1, of Division 7, Article 9, Chapter IX of the LAMC are deleted in their entirety.

Sec. 364. Division 8, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

## **ARTICLE 9, DIVISION 8**

### **COMPLIANCE FORMS, WORKSHEETS, AND REFERENCE MATERIAL**

#### **SEC. 99.08.100. BASIC PROVISION**

Chapter 8 of the 2016 California Green Building Code is not adopted, and, in lieu, Division 8, Article 9, Chapter IX of the LAMC is added as provided in this article.

[Worksheet WS-1 and Worksheet WS-2 on following pages]

**WORKSHEET (WS-1)  
BASELINE WATER USE**

BASELINE WATER USE CALCULATION TABLE							
FIXTURE TYPE	FLOW RATE		DURATION		DAILY USES	OCCUPANTS	GALLONS PER DAY
Showerheads, residential	2.0 gpm @ 80 psi	x	8 min.	x	1	Note 1a	=
Showerheads, nonresidential	2.0 gpm @ 80 psi	x	5 min.	x	1		=
Lavatory faucets, residential	1.5 gpm @ 60 psi	x	0.25 min.	x	3		=
Lavatory Faucets nonresidential/ public uses	0.5 gpm @ 60 psi	x	0.25 min	x	3		=
Kitchen faucets	1.8 gpm @ 60psi	x	4 min.	x	1	Note 1b	=
Wash fountains	1.8 gpm/20 [rim space(in) @ 60 psi]	x		x			=
Metering faucets	0.25 gallons/cycle	x	0.25 min.	x	3		=
Metering faucets for wash fountains	0.20 gal/cycle/20 [rim space (in.) @ 60 psi]	x	0.25 min.	x			=
Water Closets	1.28 gallons/flush	x	1 flush	x	1 male <sup>2</sup> 3 females		=
Urinals	0.125 gal/flush	x	1 flush	x	2 males		=
Total daily baseline water use (BWU)							=

1. Refer to Table A, Chapter 4 of the California Plumbing Code, for occupant load factors.
  - a. Shower use by occupants depends on the type of use of a building or portion of a building, e.g. total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users.
  - b. Kitchen faucet use is determined by occupant load of the area served by the fixture.
2. The daily use number shall be increased to three if urinals are not installed in the room.

**WORKSHEET (WS-2)  
BASELINE WATER USE**

20- PERCENT REDUCTION WATER USE CALCULATION TABLE							
FIXTURE TYPE	FLOW RATE		DURATION		DAILY USES	OCCUPANTS	GALLONS PER DAY
Showerheads, residential		x	8 min.	x	1	Note 1a	=
Showerheads, nonresidential		x	5 min.	x	1		
Lavatory faucets, residential		x	0.25 min.	x	3		=
Lavatory Faucets nonresidential/ public uses		x	0.25 min	x	3		=
Kitchen faucets		x	4 min.	x	1	Note 1b	=
Wash fountains		x		x			=
Metering faucets		x	0.25 min.	x	3		=
Metering faucets for wash fountains		x	0.25 min.	x			=
Water Closets		x	1 flush	x	1 male <sup>2</sup> 3 females		=
Urinals		x	1 flush	x	2 males		=
Urinals Nonwater supplied	0.0 gal/ flush	x	1 flush	x	2 male		= 0
Proposed water use (BWU)							=
20% Reduction _____ (BWU from WS-1) x 0.80 = _____							Allowable water use
% Reduction _____ (BWU from WS-1) x 0. _____ = _____							Allowable water use

1. For occupancies, refer to Table A, Chapter 4, California Plumbing Code, for occupant load factors.
  - a. Shower use by occupants depends on the type of use of a building or portion of a building, e.g., total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users.
  - b. Kitchen faucet use is determined by the occupant load of the area served by the fixture.
2. Includes single and dual flush water closets with an effective flush of 1.28 gallons or less.
 

Single flush toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A112.19.2.

Dual flush toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A112.19.2 and ASME A112.19.14.
3. The daily use number shall be increased to three if urinals are not installed in the room.
4. Where complying faucets are unavailable, aerators rated at 35 gpm or other means may be used to achieve reduction.

Sec. 365. Section 99.11.101, Division 11, Article 9, Chapter IX of the LAMC is amended to read as follows:

Appendix A4 of the 2016 California Green Building Standards Code (CALGreen) is adopted by reference with the following exceptions: CALGreen Sections A4.105.2, A4.106.8.2, A4.303.2, A4.303.4, A4.305.1, A4.305.2, A4.403.1, A4.404.1, A4.404.3, A4.405.2, A4.405.4, A4.407.1, A4.407.3, A4.407.4, A4.407.5, A4.407.7, A4.602 and Table A4.106.5.1(1) are deleted; and in lieu, LAMC Section 99.11.102 and Subsections A4.105.2, A4.106.8.2, A4.303.2, A4.303.4, A4.304.1, A4.305.1, A4.305.2, A4.404.3, A4.405.2, A4.405.4, A4.407.1, A4.407.7, A4.602 and Tables A4.106.5.1(1), A4.106.5.1(2), A4.106.5.1(3) and A4.106.5.1(4) are added or amended as provided in this article.

Sec. 366. Subsection A4.106.2.3 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted, but the tables following Subsection A4.106.2.3 are not deleted by this ordinance section.

Sec. 367. Table A4.106.5.1 (1) of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended to read as follows:

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

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.68	0.85	82
> 2 : 12	0.28	0.85	27

Sec. 368. Table A4.106.5.1 (2) of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended to read as follows:

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

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.70	0.85	85
> 2 : 12	0.34	0.85	35

Sec. 369. Table A4.106.5.1 (3) of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended to read as follows:

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

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.68	0.85	82
> 2 : 12	0.28	0.85	27

Sec. 370. Table A4.106.5.1 (4) of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended to read as follows:

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

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.70	0.85	85
> 2 : 12	0.34	0.85	35

Sec. 371. Subsection A4.106.7 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 372. Subsection A4.106.8 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 373. Subsection A4.106.8.2 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**A4.106.8.2. Multifamily Dwellings.**

**Tier 1 and Tier 2.** At least 10% of the total parking spaces, but not less than one, shall be electric vehicle charging spaces capable of supporting future EVSE and shall be identified on construction documents. Calculations for the number of electric vehicle charging spaces shall be rounded up to the nearest whole number.

See LAMC Subdivision 99.04.106.4.2 for additional requirements related to EVCS for multifamily dwellings and “R” occupancies other than one- and two-family dwellings.

Sec. 374. Subsection A4.106.8.2.1 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 375. Subsection A4.106.8.2.2 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 376. Subsection A4.106.8.2.3 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 377. Subsection A4.303.4 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**A4.303.4. Nonwater Supplied Urinals and Waterless Toilets.** Nonwater supplied urinals or composting toilets are installed throughout.

Where approved, hybrid urinals, as defined in Chapter 2 of the CALGreen Code, shall be considered waterless urinals.

Sec. 378. Subsection A4.304.1 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**A4.304.1. Rainwater Catchment Systems.** An approved rainwater catchment system is designed and installed to use rainwater generated by at least 65% of the available roof area. Rainwater catchment systems shall be designed and installed in accordance with the Los Angeles Plumbing Code.

Sec. 379. Subsection A4.304.2 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC Code is deleted in its entirety.

Sec. 380. Subsection A4.305.1 of Section 99.11.102, Division 11, Article 9, Chapter IX of the Los Angeles Municipal Code is amended in its entirety to read as follows:

**A4.305.1. Graywater.** Alternative plumbing piping installed to permit the discharge from the clothes washer or other fixtures and used for irrigation in compliance with the Los Angeles Plumbing Code.

Sec. 381. Subsection A4.404.2 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 382. Subsection A4.405.1 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 383. Subsection A4.407.6 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 384. Subsection A4.408.1 of Section 99.11.102, Division 11, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 385. Section 99.11.602 and its table in Division 11, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows.

**SEC. 99.11.602**

Section A4.602 of the 2016 CALGreen Code is adopted with amendments to read as follows:

[Section A4.602 Checklist on next page]

**SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST**

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES		VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>PLANNING AND DESIGN</b>						
<b>Site Selection</b>						
<b>A4.103.1</b> A site which complies with at least one of the following characteristics is selected: 1. An infill site is selected. 2. A greyfield site is selected. 3. An EPA-recognized Brownfield site is selected.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
<b>A4.103.2</b> Facilitate community connectivity by one of the following methods: 1. Locate project within a ¼ mile true walking distance of at least 4 basic services; 2. Locate project within ½ mile true walking distance of at least 7 basic services; 3. Other methods increasing access to additional resources.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
<b>Site Preservation</b>						
<b>A4.104.1</b> An individual with oversight responsibility for the project has participated in an educational program promoting environmentally friendly design or development and has provided training or instruction to appropriate entities.	<input type="checkbox"/>					
<b>Deconstruction and Reuse of Existing Materials</b>						
<b>A4.105.2</b> Existing buildings are disassembled for reuse or recycling of building materials. The proposed structure utilizes at least one of the following materials which can be easily reused: 1. Light fixtures 2. Plumbing fixtures 3. Doors and trim 4. Masonry (reused for flatwork) 5. Electrical devices 6. Appliances 7. Foundations or portions of foundations	<input type="checkbox"/>					
<b>Site Development</b>						
<b>4.106.2</b> A plan is developed and implemented to manage storm water drainage during construction.	<input checked="" type="checkbox"/>					
<b>4.106.3</b> Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	<input checked="" type="checkbox"/>					
<b>4.106.4</b> Provide capability for electric vehicle charging in one- and two-family dwellings and in townhouses with attached private garages; and 5% of total parking spaces, as specified, for "R" occupancies other than one- and two-family dwellings. For multi-family dwellings with 17 units or more, at least one EV charging station shall be installed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
		Tier 1	Tier 2			
4.106.5 Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum 3-year aged Solar Reflectance Index (SRI) equal to or greater than the values specified in LAMC Table 4.106.5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.106.7 Reduce nonroof heat islands for 25% of sidewalks, patios, driveways or other paved areas by using one or more of the methods listed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.106.2.1 Soil analysis is performed by a licensed design professional and the findings utilized in the structural design of the building.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.106.2.2 Soil disturbance and erosion are minimized by at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. 3. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.106.2.3 Topsoil shall be protected or saved for reuse as specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup> <input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.106.3 Postconstruction landscape designs accomplish one or more of the following: 1. Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. 2. Utilize at least 75% native California or drought tolerant plant and tree species appropriate for the climate zone region.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A4.106.4 Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following: Tier 1. Not less than 20% of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30% of the total parking, walking or patio surfaces shall be permeable.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
A4.106.5 Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum Solar Reflectance Index (SRI) equal to or greater than the values specified in LAMC Tables A4.106.5.1(1) and A4.106.5.1(2) for low-rise residential buildings and LAMC Tables A4.106.5.1(3) and A4.106.5.1(4) for high rise residential buildings. <b>Low-rise Residential</b> Tier 1 roof covering shall meet or exceed the values contained in LAMC Table A4.106.5.1(1). Tier 2 roof covering shall meet or exceed the values contained in LAMC Table A4.106.5.1(2). <b>High-rise Residential, Hotels and Motels</b> Tier 1 roof covering shall meet or exceed the values contained in LAMC Table A4.106.5.1(3). Tier 2 roof covering shall meet or exceed the values contained in LAMC Table A4.106.5.1(4).		<input checked="" type="checkbox"/> <sup>2</sup>  <input checked="" type="checkbox"/> <sup>2</sup>	 <input checked="" type="checkbox"/> <sup>2</sup>  <input checked="" type="checkbox"/> <sup>2</sup>			

continued

SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>A4.106.6</b> Install a vegetated roof for at least 50% of the roof area. Vegetated roofs shall comply with requirements for roof gardens and landscaped roofs in the <i>California Building Code, Chapters 15 and 16</i> .		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.106.7</b> Reduce nonroof heat islands for 50% of sidewalks, patios, driveways or other paved areas by using one or more of the methods listed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.106.8.1 Tier 1 and Tier 2</b> for one- and two-family dwellings and townhouses with attached private garages. Install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum per dwelling unit.	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.106.8.2 Tier 1 and Tier 2.</b> At least 10% of the total parking spaces, but not less than one, shall be electric vehicle charging spaces capable of supporting future EVSE and shall be identified on construction documents. Calculations for the number of electric vehicle charging spaces shall be rounded up to the nearest whole number.	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.106.9</b> Provide bicycle parking facilities as noted below or meet a local ordinance, whichever is more stringent. Number of bicycle parking spaces may be reduced, as approved by the enforcing agency, due to building site characteristics, including but not limited to, isolation from other development. 1. Provide short-term bicycle parking, per CALGreen Section A4.106.9.1. 2. Provide long-term bicycle parking for multifamily buildings, per CALGreen Section A4.106.9.2. 3. Provide long-term bicycle parking for hotel and motel buildings, per CALGreen Section A4.106.9.3.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.106.10 [HR]</b> Outdoor lighting systems shall be designed and installed to comply with: 1. The minimum requirements in the <i>California Energy Code</i> for Lighting Zones 1-4; and 2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and 3. Allowable BUG ratings not exceeding those shown in CALGreen Table A4.106.10; or Comply with a lawfully enacted local ordinance, whichever is more stringent.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*continued*

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>Innovative Concepts and Local Environmental Conditions</b>						
<b>A4.108.1</b> Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ENERGY EFFICIENCY</b>						
<b>General</b>						
<b>4.201.1</b> Building meets or exceeds the requirements of the <i>California Building Energy Efficiency Standards</i> <sup>3</sup> .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Performance Approach for Newly Constructed Buildings</b>						
<b>A4.203.1.1.1</b> An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.1.2</b> QII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.1 Tier 1:</b> Buildings complying with the first level of advanced energy efficiency shall have either an Energy Budget that is no greater than 85% of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 15% or greater reduction in its Energy Budget component compared to the Standard Design Building, as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission.		<input checked="" type="checkbox"/> <sup>2</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.2 Tier 2:</b> Buildings complying with the second level of advanced energy efficiency shall have either an Energy Budget that is no greater than 70% of the Title 24, Part 6 Energy Budget for the Standard Design Building, or an Energy Design Rating showing a 30% or greater reduction in its Energy Budget component compared to the Standard Design Building, as calculated by Title 24, Part 6 Compliance Software approved by the Energy Commission.			<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.203.1.2.3 Zero Net Energy Design (elective):</b> Shall comply with all of the following: 1. CALGreen Section A4.203.1.1 (Prerequisite) and 2. CALGreen Section A4.203.1.2.1 for single-family buildings in Climate Zones 6 and 7, and low-rise multifamily buildings in Climate Zones 3, 5, 6, and 7 or CALGreen Section A4.203.1.2.2 for single-family buildings in Climate Zones 1-5 and 8-16, and low-rise multifamily buildings in Climate Zones 1, 2, 4, and 8-16 3. Energy Design Rating of zero (0) or less		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Performance Approach for Additions</b>						
<b>A4.204.1.1 Tier 1.</b> If only one mechanical system is added or modified, the Energy Budget is no greater than 95% of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 90% of the Title 24, Part 6, Energy Budget for the Standard Design Building.		<input checked="" type="checkbox"/> <sup>2</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.204.1.2 Tier 2.</b> If only one mechanical system is added or modified, the Energy Budget is no greater than 90% of the Title 24, Part 6, Energy Budget for the Standard Design Building. If two or more mechanical systems are added or modified, the Energy Budget is no greater than 85% of the Title 24, Part 6, Energy Budget for the Standard Design Building.			<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>Renewable Energy</b>						
<b>4.211.4</b> Buildings shall comply with the following: 1. All one- and two-family dwellings, shall comply with Section 110.10(b)1A, 110.10(b)2, 110.10(b)3, 110.10(b)4, 110.10(c), 110.10(d) and 110.10(e) of the California Energy Code (Title 24, Part 6). 2. All buildings, other than one- and two-family dwellings, shall comply with Section 110.10(b) through 110.10(d) of the California Energy Code (Title 24, Part 6).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>WATER EFFICIENCY AND CONSERVATION</b>						
<b>Indoor Water Use</b>						
<b>4.303.1</b> Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of CALGreen Sections 4.303.1.1 through 4.303.1.4.4.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.2</b> Plumbing fixtures and fittings required in CALGreen Section 4.303.1 shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable referenced standards.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.303.3</b> Multi-family dwellings not exceeding three stories and containing 50 units or less shall install a separate meter or sub-meter within each individual dwelling unit and within common areas, such as recreation and laundry rooms	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.303.4</b> A 20% reduction in the overall use of potable water within the building shall be provided, as specified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.303.1 Kitchen faucets.</b> The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi. <b>Note:</b> Where complying faucets are available, aerators or other means may be used to achieve reduction.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.2</b> Alternate water source for nonpotable applications. Alternate nonpotable water sources are used for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i> .		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.3</b> Install at least one qualified ENERGY STAR dishwasher or clothes washer.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.4</b> Nonwater supplied urinals or waterless toilets are installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.303.5</b> Hot water recirculation systems. One- and two-family dwellings shall be equipped with a demand hot water recirculation system, as defined in Chapter 2 of this Code. The demand hot water recirculation system shall be installed in accordance with the <i>California Plumbing Code</i> , <i>California Energy Code</i> , and the manufacturer's installation instructions.						
<b>Outdoor Water Use</b>						

<p><b>4.304.1</b> After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options:</p> <ol style="list-style-type: none"> <li>1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent; or</li> <li>2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.</li> </ol>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>4.304.3</b> A landscape water meter provided by the City of Los Angeles Department of Water and Power shall be installed for landscape irrigation.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.304.4</b> Locks shall be installed on all publicly accessible exterior faucets and hose bibs</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>4.304.5</b> For one- and two-family dwellings, any permanently installed outdoor in-ground swimming pool or spa shall be equipped with a cover having a manual or power-operated reel system.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p><b>A4.304.1 Rainwater catchment systems.</b> An approved rainwater catchment system is designed and installed to use rainwater generated by at least 65% of the available roof area. Rainwater catchment systems shall be designed and installed in accordance with the <i>California Plumbing Code</i>.</p>		<input type="checkbox"/>				
<p><b>A4.304.2 Potable water elimination.</b> When landscaping is provided and as allowed by local ordinance, a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment should be provided. Methods used to accomplish the requirements of this section must be designed to the requirements of the <i>California Building Standards Code</i> and shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Use of captured rainwater.</li> <li>2. Use of recycled water.</li> <li>3. Water treated for irrigation purposes and conveyed by a water district or public entity.</li> <li>4. Use of graywater.</li> </ol>		<input type="checkbox"/>				
<p><b>A4.304.3</b> For new water service connections, landscaped irrigated areas less than 5,000 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.</p>		<input type="checkbox"/>				

continued

**SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued**

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>WATER REUSE SYSTEMS</b>						
4.305.1 Waste piping shall be arranged to permit the discharge from the clothes washer, bathtub, showers, and bathroom/restroom wash basins to be used for a future graywater irrigation system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.305.2 When City-recycled water is available for use within 200 feet of the property line, 100% of water for water closets, urinals, floor drains, and process cooling and heating in that building shall come from City-recycled water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.305.3 Cooling towers shall comply with LAMC Section 99.04.305.3.1 or 99.04.305.3.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.305.4 Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater shall be developed and constructed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
A4.305.1 Graywater. Alternative plumbing piping installed to permit the discharge from the clothes washer or other fixtures and used for irrigation in compliance with the Los Angeles Plumbing Code.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.305.2 Recycled water piping is installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.305.3 Recycled water is used for landscape irrigation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Innovative Concepts and Local Environmental Conditions</b>						
A4.306.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MATERIAL CONSERVATION AND RESOURCE EFFICIENCY</b>						
<b>Foundation Systems</b>						
A4.403.2 Cement use in foundation mix design is reduced. Tier 1. Not less than a 20% reduction in cement use. Tier 2. Not less than a 25% reduction in cement use.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>			
<b>Efficient Framing Techniques</b>						
A4.404.1 Beams and headers and trimmers are the minimum size to adequately support the load.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.2 Building dimensions and layouts are designed to minimize waste.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.3 Use premanufactured building systems to eliminate solid sawn lumber whenever possible.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.4 Material lists are included in the plans which specify material quantity and provide direction for on-site cuts.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*continued*

SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>Material Sources</b>						
<b>A4.405.1</b> One or more of the following building materials, that do not require additional resources for finishing are used: 1. Exterior trim not requiring paint or stain 2. Windows not requiring paint or stain 3. Siding or exterior wall coverings which do not require paint or stain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.405.2</b> Floors that do not require additional coverings are used including but not limited to stained, natural or stamped concrete floors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.405.3</b> Postconsumer or preconsumer recycled content value (RCV) materials are used on the project. Tier 1. Not less than a 10% recycled content value. Tier 2. Not less than a 15% recycled content value.	<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.405.4</b> Renewable source building products are used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Enhanced Durability and Reduced Maintenance</b>						
<b>4.406.1</b> Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Resistance and Moisture Management</b>						
<b>4.407.3</b> Provide flashing details on the building plans and comply with accepted industry standards or manufacturer's instructions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.407.4</b> Protect building materials delivered to the construction site from rain and other sources of moisture.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>A4.407.1</b> Install foundation and landscape drains.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.407.2</b> Install gutter and downspout systems to route water at least 5 feet away from the foundation or connect to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved on-site location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.407.6</b> Exterior doors to the dwelling are protected to prevent water intrusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.407.7</b> A permanent overhang or awning at least 2 feet in depth is provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency <input type="checkbox"/> All	Installer or Designer <input type="checkbox"/> All	Third party <input type="checkbox"/> All
		Tier 1	Tier 2			
<b>Construction Waste Reduction, Disposal and Recycling</b>						
<b>4.408.1</b> Comply with Section 66.32 et seq. of the Los Angeles Municipal Code	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A4.408.1</b> Construction waste generated at the site is diverted to recycle or salvage in compliance with one of the following: 1. Tier 1 at least a 65% reduction. Any mixed recyclables that are sent to mixed-waste recycling facilities shall include a qualified third party verified facility average diversion rate. Verification of diversion rates shall meet minimum certification eligibility guidelines, acceptable to the local enforcing agency. 2. Tier 2 at least a 75% reduction with a third-party verification. <b>Exception:</b> Equivalent waste reduction methods are developed by working with local agencies.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Building Maintenance and Operation</b>						
<b>4.410.1</b> An operation and maintenance manual shall be provided to the building occupant or owner.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.410.2</b> Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. See exception for rural jurisdictions.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Innovative Concepts and Local Environmental Conditions</b>						
<b>A4.411.1</b> Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ENVIRONMENTAL QUALITY</b>						
<b>Fireplaces</b>						
<b>4.503.1</b> Any installed gas fireplace shall be a direct-vent sealed- combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pollutant Control</b>						
<b>4.504.1</b> Duct openings and other related air distribution component openings shall be covered during construction.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.504.2.1</b> Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.504.2.2</b> Paints, stains and other coatings shall be compliant with VOC limits.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.504.2.3</b> Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.504.2.4</b> Documentation shall be provided to verify that compliant VOC limit finish materials have been used.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

continued

SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
4.504.3 Carpet and carpet systems shall be compliant with VOC	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.4 80% of floor area receiving resilient flooring shall comply with specified VOC criteria.	<input checked="" type="checkbox"/>					
4.504.5 Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.						
A4.504.1 Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.504.2 Install VOC compliant resilient flooring systems. Tier 1. At least 90% of the resilient flooring installed shall comply. Tier 2. At least 100% of the resilient flooring installed shall comply.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.504.3 Thermal insulation installed in the building shall meet the following requirements: Tier 1. Install thermal insulation in compliance with VOC limits. Tier 2. Install insulation which contains No-Added Formaldehyde (NAF) and is in compliance with Tier 1.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Interior Moisture Control</b>						
4.505.2 Vapor retarder and capillary break is installed at slab-on-grade foundations.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.505.3 Moisture content of building materials used in wall and floor framing is checked before enclosure.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Indoor Air Quality and Exhaust</b>						
A4.506.1 Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.506.2 [HR] Provide filters on return air openings rated MERV 6 or higher during construction when it is necessary to use HVAC equipment.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.506.3 Direct-vent appliances shall be used when equipment is located in conditioned space; or the equipment must be installed in an isolated mechanical room.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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SECTION A4.602  
RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES		VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
	Mandatory	Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party
		Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
<b>Environmental Comfort</b>						
<b>4.507.2</b> Duct systems are sized, designed, and equipment is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ ACCA 2 Manual J-2011 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or equivalent. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Outdoor Air Quality Reserved</b>						
<b>Innovative Concepts and Local Environmental Conditions</b>						
<b>A4.509.1</b> Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Installer and Special Inspector Qualifications</b>						
<b>Qualifications</b>						
<b>702.1</b> HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>702.2</b> Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Verifications</b>						
<b>703.1</b> Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Green building measures listed in this table may be mandatory if adopted by a city, county, or city and county as specified in CALGreen Section 101.7.

2. Required prerequisite for this Tier.

3. These measures are currently required elsewhere in statute or in regulation.

Sec. 386. The first sentence of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

Appendix A5 of the 2016 California Green Building Standards Code (CALGreen) is adopted by reference with the following exceptions: CALGreen Sections A5.105.1.1, A5.105.1.2, A5.106.4.3, A5.106.6.1, A5.106.11.2, A5.303.2.3.4, A5.406.1, A5.406.1.3, A5.602 and Tables A5.106.4.3, A5.106.5.1.1, A5.106.11.2.2, A5.106.11.2.3, A5.303.2.2, A5.303.2.3.1, A5.601 and A5.602 are deleted; and lieu, LAMC Section 99.12.101 and Subsections A5.105.1.1, A5.105.1.2, A5.106.4.3, A5.106.6.1, A5.106.11.2, A5.303.2.3.1, A5.303.2.3.2, A5.303.2.3.3, A5.303.2.3.4, A5.406.1, A5.410.3, A5.602 and Tables A5.106.4.3, A5.106.5.1.1, A5.106.11.2.2, A5.106.11.2.3, A5.601 and A5.602 are added as provided in this article.

Sec. 387. Subsection A5.106.5.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

Provide designated parking, by means of permanent marking or a sign, for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as shown in LAMC Table A5.106.5.1.1, or CALGreen Section A5.106.5.1.2 and Table A5.106.1.2.

Sec. 388. Subsection A5.106.5.1.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 389. Table A5.106.5.1.2 of Subsection A5.106.5.1.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 390. Subsection A5.106.5.3.3 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 391. Subsection A5.106.5.3.4 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 392. Subsection A5.106.11.1.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 393. The first unnumbered paragraph of Subsection A5.106.11.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

Use roofing materials having a minimum aged solar reflectance and thermal emittance complying with CALGreen Sections A5.106.11.2.1 and A5.106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) complying with CALGreen Section A5.106.11.2.3 and as shown in LAMC Table A5.106.11.2.2 for Tier 1 or LAMC Table A5.106.11.2.3 for Tier 2.

Sec. 394. Table A5.106.11.2.2 of Subsection A5.106.11.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

**TABLE A5.106.11.2.2 [BSC]  
TIER 1**

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.68	0.85	82
> 2 : 12	0.28	0.85	27

Sec. 395. Table A5.106.11.2.3 of Subsection A5.106.11.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

**TABLE A5.106.11.2.3  
TIER 2**

ROOF SLOPE	MINIMUM 3-YEAR AGED SOLAR REFLECTANCE	THERMAL EMITTANCE	3-YEAR AGED SRI
≤ 2 : 12	0.70	0.85	85
> 2 : 12	0.34	0.85	35

Sec. 396. Subsection A5.211.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 397. A new Subsection A5.303.2.3.1 is added to Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC to read as follows:

**A5.303.2.3.1. Tier 1 - 12 Percent Savings.** A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 12% shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the Los Angeles Building Standards Code in Article 1, Chapter IX of the LAMC.

Sec. 398. A new Subsection A5.303.2.3.2 is added to Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC to read as follows:

**A5.303.2.3.2. Tier 2 - 20 Percent Savings.** A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20% shall be provided. A calculation demonstrating a 20% reduction in the building shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the Los Angeles Municipal Code.

Sec. 399. A new Subsection A5.303.2.3.3 is added to Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is added to read as follows:

**A5.303.2.3.3. 25 Percent Savings.** A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 25% shall be provided. A calculation demonstrating a 25% reduction in the building “water use baseline” shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the Los Angeles Municipal Code.

Sec. 400. Subsection A5.303.2.3.4 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**A5.303.2.3.4. Nonpotable Water Systems for Indoor Water Use.** Utilizing nonpotable water systems (such as captured rainwater, treated graywater, and recycled water) intended to supply water closets, urinals, and other allowed uses, may be used in the calculations demonstrating the 12%, 20%, or 25% reduction. The nonpotable water system shall comply with the current edition of the Los Angeles Plumbing Code at Article 4, Chapter IX of the LAMC.

Sec. 401. Subsection A5.304.2.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 402. Subsection A5.304.4.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 403. Subsection A5.304.5 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 404. Subsection A5.304.8 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 405. Subsection A5.305.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 406. Subsection A5.404.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 407. Subsection A5.404.1.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 408. Subsection A5.405.3 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 409. Subsection A5.405.5.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 410. Subsection A5.405.5.2.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 411. Subsection A5.406.1.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 412. Subsection A5.406.1.2 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 413. Subsection A5.409.1 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted in its entirety.

Sec. 414. The first sentence of Subsection A5.410.3 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

For new buildings under 10,000 square feet (929.03 m<sup>2</sup>) or for additions, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.

Sec. 415. The subsection number, title and first sentence of Subsection A5.504.4.9 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is deleted, but Table A5.601 is not deleted.

Sec. 416. Table A5.601 of Section 99.12.101, Division 12, Article 9, Chapter IX of the LAMC is amended to read as follows:

**TABLE A5.601 NONRESIDENTIAL BUILDINGS:  
Green Building Standards Code Tier 1 and Tier 2 Reference Table**

*Note: This table is intended only as an aid in illustrating the nonresidential tier structure*

{Click here for a printable PDF version of this table}

CATEGORY	ENVIRONMENTAL PERFORMANCE GOAL	TIER 1	TIER 2
All	Minimum Mandatory	Meet all of the provisions of CALGreen Chapter 5	Meet all of the provisions of CALGreen Chapter 5
Planning and Design	Designated Parking for Fuel Efficient Vehicles	Meet LAMC Table A5.106.5.1.1	Meet LAMC Table A5.106.5.1.2

	Cool Roof to Reduce Heat Island Effect	Meet LAMC Table A5.106.11.2.2	Meet LAMC Table A5.106.11.2.3
		1 additional Elective from CALGreen Division A5.1	3 additional Electives from CALGreen Division A5.1
Energy Efficiency	Energy Performance <sup>2</sup>	Outdoor lighting power 90% of Part 6, Title 24, CCR allowance	Outdoor lighting power 90% of Part 6, Title 24, CCR allowance
		If applicable, solar water-heating system with minimum solar savings fraction of 0.15	If applicable, solar water-heating system with minimum solar savings fraction of 0.15
		If applicable, certain functional areas comply with residential indoor lighting requirements	If applicable, certain functional areas comply with residential indoor lighting requirements
		Energy Budget 95% or 90% of Part 6, Title 24, CCR allowance	Energy Budget 90% or 85% of Part 6, Title 24, CCR allowance
Water Efficiency and Conservation	Indoor Water Use	12% Savings	20% Savings
		1 additional Elective from CALGreen Division A5.3	3 additional Electives from CALGreen Division A5.3

<b>Material Conservation and Resource Efficiency<sup>3</sup></b>	Construction Waste Reduction	At least 65% reduction	At least 85% reduction
	Recycled Content	Utilize recycled content materials for 10% of total material cost	Utilize recycled content materials for 15% of total material cost
		1 additional Elective from CALGreen Division	3 additional Electives from CALGreen Division
<b>Environmental Quality</b>	Low-VOC Resilient Flooring	90% of flooring meets VOC limits	100% of flooring meets VOC limits <sup>1</sup>
	Low-VOC Thermal Insulation	Comply with VOC limits	Install no-added formaldehyde insulation and comply VOC limits
		1 additional Elective from CALGreen Division A5.5	3 additional Electives from CALGreen Division A5.5
<b>Additional Measures</b>	Added measures shall be achieved across at least 3 categories	1 Additional Elective	3 Additional Electives
<b>Approximate Total Measures</b>		14	24

1. Exception: Allowance may be permitted in Tier 2 for up to 5% specialty purpose flooring.

2. Solar water-heating system requirement for newly constructed restaurants as per CALGreen A5.203.1.1.2.

Exceptions:

- a. Buildings with a natural gas service water heater with a minimum of 95% thermal efficiency.
  - b. Buildings where greater than 75% of the total roof area has annual solar access that is less than 70%. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.
3. Life cycle assessment compliant with CALGreen Section A5.409.4 in this code may be substituted for prescriptive measures from Division A5.4.

Sec. 417. Section 99.12.508 and its table in Division 12, Article 9, Chapter IX of the LAMC is amended in its entirety to read as follows:

**SEC. 99.12.508.**

Section A5.602 of the 2016 CALGreen Code is adopted with amendments to read as follows:

[Section A5.602 Checklist on next page]

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLISTS<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>Requirements</b>			
Project meets all of the requirements of Divisions 5.1 through 5.5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Planning and Design</b>			
<b>Site Selection</b>			
<b>A5.103.1 Community connectivity.</b> Locate project on a previously developed site within a ½ - mile radius of at least ten basic services, listed in CALGreen Section A5.103.1.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.103.2 Brownfield or greyfield site redevelopment or infill area development.</b> Select for development a brownfield in accordance with CALGreen Section A5.103.2.1 or on a greyfield or infill site as defined in CALGreen Section A5.106.3.2. <b>A5.103.2.1 Brownfield redevelopment.</b> Develop a site documented as contaminated and fully remediated or on a site defined as a brownfield.		<input type="checkbox"/>	<input type="checkbox"/>
<b>Site Preservation</b>			
<b>A5.104.1.1 Local zoning requirement in place.</b> Exceed the zoning's open space requirement for vegetated open space on the site by 25%. <b>A5.104.1.2 No local zoning requirement in place.</b> Provide vegetated open space area adjacent to the building equal to the building footprint area. <b>A5.104.1.3 No open space required in zoning ordinance.</b> Provide vegetated open space equal to 20% of the total project site area.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Deconstruction and Reuse of Existing Structures</b>			
<b>A5.105.1.1 Existing building structure.</b> Maintain at least 75% of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing) based on surface area. <b>Exceptions:</b> 1. Window assemblies and nonstructural roofing material. 2. Hazardous materials that are remediated as a part of the project. <b>A5.105.1.2 Existing nonstructural elements.</b> Reuse existing interior nonstructural elements (interior walls, doors, floor coverings and ceiling systems) in at least 50% of the area of the completed building (including additions). <b>A5.105.1.3 Salvage.</b> Salvage additional items in good condition such as light fixtures, plumbing fixtures and doors for reuse on this project in an onsite storage area or for salvage in dedicated collection bins. Document the weight or number of the items salvaged. See Items 1 and 2.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Site Development</b>			
<b>5.106.1 Storm water pollution prevention.</b> Newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of stormwater runoff from the construction activities through local ordinance in CALGreen Section 5.106.1.1 or Best management practices (BMP) in CALGreen Section 5.106.1.2. <b>A5.106.2 Storm water design.</b> Design storm water runoff rate and quantity in conformance with CALGreen Section A5.106.2.1 and storm water runoff quality by CALGreen Section A5.106.2.2 or by local requirements, whichever are stricter. <b>A5.106.2.1 Storm water runoff rate and quantity.</b> Implement a storm water management plan resulting in no net increase in rate and quantity of storm water runoff from existing to developed conditions. <b>Exception:</b> If the site is already greater than 50% impervious, implement a storm water management plan resulting in a 25% decrease in rate and quantity. <b>A5.106.2.2 Storm water runoff quality.</b> Use post construction treatment control best management practices (BMPs) to mitigate (infiltrate, filter or treat) storm water runoff from the 85th percentile 24-hour runoff event (for volume-based BMPs) or the runoff produced by a rain event equal to two times the 85th percentile hourly intensity (for flow-based BMPs).	<input checked="" type="checkbox"/>  or <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>A5.106.3 Low impact development (LID).</b> Reduce peak runoff in compliance with CALGreen Section 5.106.1. Employ at least two of the following methods or other best management practices to allow rainwater to soak into the ground, evaporate into the air or collect in storage receptacles for irrigation or other beneficial uses. LID strategies include, but are not limited to those listed in CALGreen Section A5.106.3. <b>A5.106.3.1 Implementation.</b> If applicable, coordinate LID projects with the local Regional Water Quality Control Board, which may issue a permit or otherwise require LID. <b>A5.106.3.2 Greyfield or infill site.</b> Manage 40% of the average annual rainfall on the site's impervious surfaces through infiltration, reuse or evapotranspiration.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

*continued*



<p><b>5.106.5.3 Electric vehicle (EV) charging. [N]</b> Construction shall comply with LAMC Section 99.05.106.5.3.1 or Section 99.05.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE).</p> <p><b>5.106.5.3.1 Single charging space requirements. [N]</b></p> <p><b>5.106.5.3.2 Multiple charging spaces requirements. [N]</b></p> <p><b>5.106.5.3.3 EV charging space calculation. [N]</b> per LAMC Table 5.106.5.3.3 (approx. 6%)</p> <p><b>5.106.5.3.4 [N] Identification.</b></p> <p><b>5.106.5.3.5 [N]</b> EV spaces count as designated parking.</p> <p><b>5.106.5.3.1 Single charging space requirements. [N]</b></p> <p><b>5.106.5.3.2 Multiple charging spaces requirements. [N]</b></p> <p><b>5.106.5.3.2.1 Charging Station requirements [N]</b></p> <p><b>5.106.5.3.3 EV charging space calculation. [N]</b> per LAMC Table 5.106.5.3.3 (approx. 6%)</p> <p><b>5.106.5.3.4 [N] Identification.</b></p> <p><b>5.106.5.3.5 [N]</b> EV spaces count as designated parking.</p> <p><b>A5.106.5.3.1 Tier 1.</b> Per CALGreen Table A5.106.5.3.1 (approx. 8%)</p> <p><b>A5.106.5.3.2 Tier 2.</b> per CALGreen Table A5.106.5.3.2 (approx. 10%)</p> <p><b>A5.106.5.3.3 Identification.</b> The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE." The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."</p> <p><b>A5.106.5.3.4</b> Future charging spaces qualify as designated parking as described in CALGreen Section A5.106.5.1</p> <p>Designated parking for clean air vehicles. See Notes 1, 2 and 3.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A5.106.6 Parking capacity.</b> Design parking capacity to meet but not exceed minimum local zoning requirements.</p> <p><b>A5.106.6.1 Reduce parking capacity.</b> With the approval of the enforcement authority, employ strategies to reduce on-site parking area by 20%</p> <ol style="list-style-type: none"> <li>1. Use of on street parking or compact spaces, illustrated on the site plan or</li> <li>2. Implementation and documentation of programs that encourage occupants to carpool, ride share or use alternate transportation.</li> </ol>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<p><b>A5.106.7 Exterior walls.</b> Meet requirements in the current edition of the <i>California Energy Code</i> and comply with either CALGreen Section A5.106.7.1 or A5.106.7.2 for wall surfaces:</p> <p><b>A5.106.7.1 Fenestration.</b> Provide vegetative or man-made shading devices for all fenestration on east-, south- and west-facing walls.</p> <p><b>A5.106.7.1.1 East and west walls.</b> Shading devices shall have 30% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less.</p> <p><b>A5.106.7.1.2 South walls.</b> Shading devices shall have 60% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less.</p> <p><b>A5.106.7.2 Opaque wall areas.</b> Use wall surfacing with SRI 25 (aged), for 75% of opaque wall areas. See Exception and Note.</p>		<input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>
<p><b>5.106.8 Light pollution reduction. [N]</b> Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> <li>1. The minimum requirements in the <i>California Energy Code</i> for Lighting Zones 1–4 as defined in Chapter 10 of the <i>California Administrative Code</i>; and</li> <li>2. Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-11; and</li> <li>3. Allowable BUG ratings not exceeding those shown in CALGreenTable 5.106.8, or</li> </ol> <p>Comply with a local ordinance lawfully enacted pursuant to CALGreen Section 101.7, whichever is more stringent.</p> <p><b>Exceptions: [N]</b></p> <ol style="list-style-type: none"> <li>1. Luminaires that qualify as exceptions in Section 140.7 of the <i>California Energy Code</i></li> <li>2. Emergency lighting</li> <li>3. Building facade meeting the requirements in Table 140.7-B of the <i>California Energy Code</i>, Part 6.</li> <li>4. Custom lighting features as allowed by the local enforcing agency, as permitted by CALGreen Section 101.8 Alternate materials, designs and methods of construction</li> </ol> <p><b>Note: [N]</b> See also <i>California Building Code</i>, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.</p>	<input checked="" type="checkbox"/>   or <input checked="" type="checkbox"/>		
<p><b>5.106.10 Grading and paving.</b> Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include those shown in Items 1–5. See exception for additions or alterations.</p>	<input checked="" type="checkbox"/>		

<p><b>A5.106.11 Heat island effect.</b> Reduce nonroof heat islands and roof heat islands as follows:</p> <p><b>5.106.11. Hardscape Alternatives [N].</b> Use one or a combination of strategies below for 25% of site hardscape.</p> <ol style="list-style-type: none"> <li>1. Provide shade (mature within 5 years of occupancy);</li> <li>2. Use light colored materials with an initial solar reflectance value of at least .30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E 1918 or C 1549;</li> <li>3. Use open-grid pavement system or pervious or permeable pavement system; or</li> <li>4. Use solar panel arrays to create a canopy shade system.</li> </ol> <p><b>A5.106.11.1 Hardscape alternatives.</b> Use one or a combination of strategies 1 through 2 for 50% of site hardscape or put 50% of parking underground.</p> <ol style="list-style-type: none"> <li>1. Use light colored materials with an initial solar reflectance value of at least 30 as determined in accordance with ASTM Standards E1918 or C1549.</li> <li>2. Use open-grid pavement system or pervious or permeable pavement system.</li> </ol> <p><b>A5.106.11.1.1 Hardscape alternatives.</b> Use one or a combination of strategies 1 through 3 for 75% of site hardscape.</p> <ol style="list-style-type: none"> <li>1. Use light colored materials with an initial solar reflectance value of at least 30 as determined in accordance with ASTM Standards E1918 or C1549.</li> <li>2. Use open-grid pavement system or pervious or permeable pavement system.</li> <li>3. Use solar panel arrays to create a canopy shade system</li> </ol> <p><b>A5.106.11.2 Cool roof for reduction of heat island effect.</b> Use roofing materials having a minimum aged solar reflectance, thermal emittance complying with LAMC Sections A5.106.11.2.2 and A5.106.11.2.3 or a minimum aged or Solar Reflectance Index (SRI) equal to or greater than the values shown in:</p> <p>LAMC Table A5.106.11.2.2 – Tier 1 or LAMC Table A5.106.11.2.3 – Tier 2</p> <p><b>Exceptions:</b></p> <ol style="list-style-type: none"> <li>1. Roof constructions that have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 lb/sf<sup>2</sup>. Roof area covered by building integrated solar photovoltaic and building integrated solar thermal panels.</li> </ol> <p><b>A5.106.11.2.1 Solar reflectance.</b> Roofing materials shall have a minimum aged solar reflectance equal to or greater than the values specified in LAMC Table A5.106.11.2.2 for Tier 1 and LAMC Table A5.106.11.2.3 for Tier 2.</p> <p>If Cool Roof Rating Council (CRRRC) testing for aged reflectance is not available for any roofing products, the aged value shall be determined using the CRRRC certified initial value using the equation <math>p_{aged} = [0.2 + \beta [p_{initial} - 0.2]]</math>, where <math>p_{initial}</math> = the initial solar reflectance and soiling resistance, <math>\beta</math>, listed by product type in LAMC Table A5.106.11.2.1.</p> <p>Solar reflectance may also be certified by other supervisory entities approved by the Energy Commission pursuant to Title 24, Part 1, California Administrative Code.</p> <p><b>A5.106.11.2.2 Thermal emittance.</b> Roofing materials shall have a CRRRC initial or aged thermal emittance as determined in accordance with ASTM E 408 or C 1371 equal to or greater than those specified in LAMC Table A5.106.11.2.2 for Tier 1 and LAMC Table A5.106.11.2.3 for Tier 2.</p> <p>Thermal emittance may also be certified by other supervisory entities approved by the Energy Commission pursuant to Title 24, Part 1, California Administrative Code.</p> <p><b>A5.106.11.2.3 Solar reflectance index alternative.</b> Solar Reflectance Index (SRI) equal to or greater than the values specified in LAMC Table A5.106.11.2.2 for Tier 1 and LAMC Table A5.106.11.2.3 for Tier 2 may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.</p> <p>SRI values used to comply with this section shall be calculated using the Solar Reflectance Index (SRI) Calculation Worksheet (SRI-WS) developed by the California Energy Commission or in compliance with ASTM E 1980-01 as specified in the California Energy Code, Section 118(i)3. Solar reflectance values used in the SRI-WS shall be based on the aged reflectance value of the roofing product or the equation in CALGreen Section A5.106.11.2.1 if the CRRRC certified aged solar reflectance are not available. Certified Thermal emittance used in the SRI-WS may be either the initial value or the aged value listed by the CRRRC. Solar reflectance and thermal emittance may also be certified by other supervisory entities approved by the Commission pursuant to Title 24, Part 1, California Administrative Code.</p> <p>See Note:</p> <p><b>A5.106.11.3 Verification of compliance.</b> If no documentation is available, an inspection shall be conducted to ensure roofing materials meet cool roof aged solar reflectance and thermal emittance or SRI values.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
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continued

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>Energy Efficiency</b>			
<b>Performance Requirements for Newly Constructed Buildings and Additions</b>			
<b>5.201.1 Scope.</b> Building meets or exceeds the requirements of the California Building Energy Efficiency	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>
<b>A5.203.1 Energy efficiency.</b> Nonresidential, high-rise residential and hotel/motel buildings that include lighting and/or mechanical systems shall comply with CALGreen Sections A5.203.1.1 and either A5.203.1.2.1 or A5.203.1.2.2. Newly constructed buildings, as well as additions and alterations, are included in the scope of these sections. Buildings permitted without lighting or mechanical systems shall comply with CALGreen Section A5.203.1.1 but are not required to comply with CALGreen Sections A5.203.1.1.2 or A5.203.1.2.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.203.1.1 Tier 1 and Tier 2 prerequisites.</b> Each of the following efficiency measures is required for all applicable components of the building project		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>
<b>A5.203.1.1.1 Outdoor lighting.</b> Newly installed outdoor lighting power is no greater than 90% of the Title 24, Part 6 calculated value of allowed outdoor lighting power.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>
<b>A5.203.1.1.2 Service water heating in restaurants.</b> Newly constructed restaurants 8,000 square feet or greater and with service water heaters rated 75,000 Btu/h or greater installed a solar water-heating system with a minimum solar savings fraction of 0.15. See exceptions 1 and 2.		<input checked="" type="checkbox"/> <sup>2</sup>	<input checked="" type="checkbox"/> <sup>2</sup>
<b>A5.203.1.2 Performance standard.</b> Comply with one of the advanced efficiency levels indicated below. <b>A5.203.1.2.1 Tier 1.</b> Buildings complying with the first level of advanced energy efficiency shall have an Energy Budget that is no greater than indicated below, depending on the type of energy systems included in the building project. If the newly constructed building, addition or alteration does not include indoor lighting or mechanical systems, then no additional performance requirements above Title 24, Part 6 are required. 1. For building projects that include indoor lighting or mechanical systems, but not both: No greater than 95% of the Title 24, Part 6, Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. 2. For building projects that include indoor lighting and mechanical systems: No greater than 90% of the Title 24, Part 6 Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission.		<input checked="" type="checkbox"/> <sup>2</sup>	
<b>A5.203.1.2.2 Tier 2.</b> Buildings complying with the second level of advanced energy efficiency shall have an Energy Budget that is no greater than indicated below, depending on the type of energy systems included in the building project. If the newly constructed building, addition or alteration does not include indoor lighting or mechanical systems, then no additional performance requirements above Title 24, Part 6 are required. 1. For building projects that include indoor lighting or mechanical systems, but not both: No greater than 90% of the Title 24, Part 6, Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. 2. For building projects that include indoor lighting and mechanical systems: No greater than 85% of the Title 24, Part 6, Energy Budget for the Standard Design Building as calculated by compliance software certified by the Energy Commission. <b>Note:</b> For Energy Budget calculations, high-rise residential and hotel/motel buildings are considered nonresidential buildings.			<input checked="" type="checkbox"/> <sup>2</sup>
<b>Renewable Energy</b>			
<b>5.211.1. Solar Ready Buildings [N].</b> Comply with Section 110.10 of the California Energy Code. <b>A5.211.1 On-site renewable energy.</b> Use on-site renewable energy for at least 1% of the electrical service overcurrent protection device rating calculated in accordance with the 2016 <i>California Electrical Code</i> or 1KW, whichever is greater, in addition to the electrical demand required to meet 1% of natural gas and propane use calculated in accordance with the 2016 <i>California Plumbing Code</i> . <b>A5.211.1.1 Documentation.</b> Calculate renewable on-site system to meet the requirements of CALGreen Section A5.211.1. Factor in net-metering, if offered by local utility, on an annual basis. <b>A5.211.3 Green power.</b> Participate in the local utility's renewable energy portfolio program that provides a minimum of 50% electrical power from renewable sources. Maintain documentation through utility billings.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

continued

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>Elevators, Escalators and Other Equipment</b>			
<p><b>A5.212.1 Elevators and escalators.</b> In buildings with more than one elevator or two escalators, provide systems and controls to reduce the energy demand of elevators and escalators as follows. Document systems operation and controls in the project specifications and commissioning plan.</p> <p><b>A5.212.1.1 Elevators.</b> Traction elevators shall have a regenerative drive system that feeds electrical power back into the building grid when the elevator is in motion.</p> <p><b>A5.212.1.1.1 Car lights and fan.</b> A parked elevator shall turn off its car lights and fan automatically until the elevator is called for use.</p> <p><b>A5.212.1.2 Escalators.</b> An escalator shall have a variable voltage variable frequency (VVVF) motor drive system that is fully regenerative when the escalator is in motion.</p> <p><b>A5.212.1.4 Controls.</b> Controls that reduce energy demand shall meet requirements of CCR, Title 8, Chapter 4, Subchapter 6 and shall not interrupt emergency operations for elevators required in CCR, Title 24, Part 2, <i>California Building Code</i>.</p>		<input type="checkbox"/>   <input type="checkbox"/>  <input type="checkbox"/>	<input type="checkbox"/>   <input type="checkbox"/>  <input type="checkbox"/>
<b>Energy Efficient Steel Framing</b>			
A5.213.1 Steel framing. Design for and employ techniques to avoid thermal bridging.		<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Efficiency and Conservation</b>			
<b>Indoor Water Use</b>			
<p><b>5.303.1 Meters.</b> Separate meters shall be installed for the uses described in LAMC Sections 99.05.303.1.1 and CALGreen Section 5.303.1.2.</p> <p><b>5.303.1.1 New buildings or additions in excess of 50,000 square feet.</b> Separate submeters shall be installed as follows:</p> <ol style="list-style-type: none"> <li>1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day, including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.</li> <li>2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: <ol style="list-style-type: none"> <li>a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s)</li> <li>b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s)</li> <li>c. Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW)</li> </ol> </li> <li>3. For each building that uses more than 100 gallons per day on a parcel containing multiple buildings.</li> </ol> <p><b>5.303.1.2 Excess consumption.</b> A separate submeter or metering device shall be provided for any tenant within a new building or an addition that is projected to consume more than 1,000 gal/day (3800 L/day).</p>	<input checked="" type="checkbox"/>   <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>5.303.2 Water Reduction.</b> Each building shall demonstrate a 20% overall reduction in potable water use, as specified.</p> <p><b>A5.303.2.3.1 Tier 1 – 12-percent savings.</b> A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 12% shall be provided. By either the prescriptive or performance method.</p> <p><b>A5.303.2.3.2 Tier 2 – 20-percent savings.</b> A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20% shall be provided. (Calculate savings by Water Use Worksheets)</p> <p><b>A5.303.2.3.3 25-percent savings.</b> A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 25% shall be provided. (Calculate savings by Water Use Worksheets)</p> <p><b>A5.303.2.3.4 Nonpotable water systems for indoor use.</b> Utilizing nonpotable water systems (such as captured rainwater, treated graywater, and recycled water) intended to supply water closets, urinals, and other allowed uses, may be used in the calculations demonstrating the 12-, 20- or 25-percent reduction. The nonpotable water systems shall comply with the current edition of the <i>California Plumbing Code</i>.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>    <input type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>





<p><b>5.304.1 Scope.</b> The provisions of CALGreen Section 5.304 Outdoor Water Use reference the mandatory Model Water Efficiency Landscape Ordinance (MWELo) contained within Chapter 2.7, Division 2, Title 23, <i>California Code of Regulations</i>.<sup>3</sup></p>	<input checked="" type="checkbox"/>		
<p><b>A5.304.2 Outdoor water use.</b> For new water service not subject to the provisions of <i>Water Code</i> Section 535, separate meters or submeters shall be installed for indoor and outdoor water use for landscaped areas of at least 500 square feet but not more than 1,000 square feet.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>5.304.2 Outdoor water use in landscape areas equal to or greater than 500 square feet.</b><sup>3</sup>  When water is used for outdoor irrigation for new construction projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review, one of the following shall apply:</p> <ol style="list-style-type: none"> <li>1. A local water efficient landscape ordinance that is, based on evidence in the record, at least as effective in conserving water as the updated model ordinance adopted by the Department of Water Resources (DWR) per Government Code Section 65595 (c).</li> <li>2. The California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELo) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, <i>California Code of Regulations</i>.</li> </ol>	<input checked="" type="checkbox"/>		

*continued*

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>5.304.3 Outdoor water use in rehabilitated landscape projects equal to or greater than 2,500 square feet.</b> Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review shall comply with CALGreen Section 5.304.2, Item 1 or 2. <sup>3</sup>	<input checked="" type="checkbox"/>		
<b>5.304.4 Outdoor water use in landscape areas of 2,500 square feet or less.</b> Any project with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of MWELo or conform to the prescriptive compliance measures contained in MWELo's Appendix D. <sup>3</sup>	<input checked="" type="checkbox"/>		
<b>5.304.5 Graywater or rainwater use in landscape areas.</b> For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the project that has less than 2,500 square feet of landscape and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with treated or untreated graywater or through stored rainwater captured on site is subject only to Appendix D Section (5). <sup>3</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.304.6 Restoration of areas disturbed by construction.</b> Restore all areas disturbed during construction by planting with local native and/or noninvasive vegetation.		<input type="checkbox"/>	<input type="checkbox"/>
<b>5.304.7 Exterior Faucets.</b> Locks shall be installed on all publicly accessible exterior faucets and hose bibs.	<input checked="" type="checkbox"/>		
<b>A5.304.7 Previously developed sites.</b> On previously developed or graded sites, restore or protect at least 50% of the site area with native and/or noninvasive vegetation.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.304.8 Graywater irrigation system.</b> Install graywater collection system for onsite subsurface irrigation using graywater collected from bathtubs, showers, bathroom wash basins and laundry water. See <i>California Plumbing Code</i> .		<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Reuse</b>			
<b>5.305.1. Graywater Ready.</b> Waste piping shall be arranged to permit the discharge from the clothes washer, bathtub, showers, and bathroom/restroom wash basins to be used for a future graywater irrigation system. The flow from the fixtures shall be piped separately, and shall, at a minimum, be adequate to supply the irrigation demand. The point of connection between the graywater piping and other waste piping shall be accessible (as defined in LAMC Section 99.02.202) and provided with signage that is satisfactory to the Department.	<input checked="" type="checkbox"/>		
<b>A5.305.1 Nonpotable water systems.</b> Nonpotable water systems for indoor and outdoor use shall comply with the current edition of the <i>California Plumbing Code</i> .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.305.2. Recycled Water Supply to Fixtures.</b> When City-recycled water is available within 200 feet of the property line, 100% of water for water closets, urinals, floor drains, and process cooling and heating in that building shall come from City-recycled water. Recycled water systems shall be designed and installed in accordance with the Los Angeles Plumbing Code.	<input checked="" type="checkbox"/>		
<b>A5.305.2 Irrigation systems.</b> Irrigation systems regulated by a local water efficient landscape ordinance or by the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELo) shall use recycled water.		<input type="checkbox"/>	<input type="checkbox"/>
<b>5.305.3. Cooling Towers [N].</b> Cooling towers shall comply with one of the following: 1. Cooling towers shall have a minimum of 6 cycles of concentration (blowdown); or 2. A minimum of 50% of makeup water supply shall come from non-potable water sources, including treated backwash.			
<b>5.305.4. Groundwater Discharge [N].</b> Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer.			
<b>Material Conservation and Resource Efficiency</b>			
<b>Efficient Framing Systems</b>			
<b>A5.404.1 Wood framing.</b> Employ advanced wood framing techniques or OVE, as permitted by the enforcing agency. See CALGreen Sections A5.404.1.1 and A5.404.1.2 for additional requirements.		<input type="checkbox"/>	<input type="checkbox"/>
<b>Material Sources</b>			
<b>A5.405.1 Regional materials.</b> Select building materials or products for permanent installation on the project that have been harvested or manufactured in California or within 500 miles of the project site, meeting the criteria listed in CALGreen Section A5.405.1.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.405.2 Bio-based materials.</b> Select bio-based building materials per CALGreen Section A5.405.2.1 or A5.405.2.2.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.405.2.1 Certified wood products.</b> Certified wood is an important component of green building strategies and the California Building Standards Commission will continue to develop a standard through the next code cycle.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.405.2.2 Rapidly renewable materials.</b> Use materials made from plants harvested within a ten-year cycle for at least 2.5% of total materials value, based on estimated cost.		<input type="checkbox"/>	<input type="checkbox"/>
<b>A5.405.3 Reused materials.</b> Use salvaged, refurbished, refinished or reused materials for at least 5% of the total value, based on estimated cost of materials on the project.		<input type="checkbox"/>	<input type="checkbox"/>

<p><b>A5.405.4 Recycled content.</b> Use materials, equivalent in performance to virgin materials, with a total (combined) recycled content value (RCV) of:</p> <p><b>Tier 1.</b> The RCV shall not be less than 10% of the total material cost of the project or use two products which meet the minimum recycled content levels in CALGreen Table A5.405.4 for at least 75%, by cost, of all products in that category in the project</p> <p><b>Tier 2.</b> The RCV shall not be less than 15% of the total material cost of the project or use three products which meet the minimum recycled content levels in CALGreen Table A5.405.4 for at least 75%, by cost, of all products in that category in the project.</p> <p><b>Note:</b> Use the equations in the subsections for calculating total materials cost, recycled content, RCV of materials and assemblies, and total RCV.</p>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>







<p><b>5.410.4 Testing and adjusting.</b> Testing and adjusting of systems shall be required for buildings less than 10,000 square feet. Applies to new systems serving additions or alterations.</p> <p><b>5.410.4.2 Systems.</b> Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include, as applicable to the project, the systems listed in CALGreen Section 5.410.4.2.</p> <p><b>5.410.4.3 Procedures.</b> Perform testing and adjusting procedures in accordance with applicable standards on each system as determined by the enforcing agency.</p> <p><b>5.410.4.3.1 HVAC balancing.</b> Before a new space-conditioning system serving a building or space is operated for normal use, balance in accordance with the procedures defined by national standards listed in CALGreen Section 5.410.4.3.1 or as approved by the enforcing agency.</p> <p><b>5.410.4.4 Reporting.</b> After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p><b>5.410.4.5 Operation and maintenance manual.</b> Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.</p> <p><b>5.410.4.5.1 Inspections and reports.</b> Include a copy of all inspection verifications and reports required by the enforcing agency.</p>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>		
<b>Environmental Quality</b>			
<b>Fireplaces</b>			
<p><b>5.503.1 Fireplaces.</b> Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove and refer to residential requirements in the <i>California Energy Code</i>, Title 24, Part 6, Subchapter 7, Section 150.</p> <p><b>5.503.1.1 Woodstoves.</b> Woodstoves shall comply with US EPA New Source Performance Standards (NSPS) emission limits, where applicable, and shall have a permanent label indicating they are certified to meet the emission limits.</p>	<input checked="" type="checkbox"/> As applicable  <input checked="" type="checkbox"/>		

continued

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>Pollutant Control</b>			
<p><b>A5.504.1 Indoor air quality (IAQ) during construction.</b> Maintain IAQ as provided in CALGreen Sections A5.504.1.1 and A5.504.1.2.</p> <p><b>A5.504.1.1 Temporary ventilation.</b> Provide temporary ventilation during construction in accordance with Section 121 of the <i>California Energy Code</i>, CCR, Title 24, Part 6 and Chapter 4 of CCR, Title 8 and as listed in Items 1 and 2 in CALGreen Section A5.504.1.1.</p> <p><b>A5.504.1.2 Additional IAQ measures.</b> Employ additional measures as listed in Items 1 through 5 in CALGreen Section A5.504.1.2.</p> <p><b>5.504.1 Temporary ventilation.</b> If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. Applies to additions or alterations.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A5.504.2 IAQ postconstruction.</b> Flush out the building per CALGreen Section A5.504.2 prior to occupancy or if the building is occupied.</p> <p><b>A5.504.2.1 IAQ Testing.</b> A testing alternative may be employed after all interior finishes have been installed, using testing protocols recognized by the United State Environmental Protection Agency (U.S. EPA) and in accordance with CALGreen Section A5.504.2.1.2. Retest as required in CALGreen Section A5.504.2.1.3.</p> <p><b>A5.504.2.1.1 Maximum levels of contaminants.</b> Allowable levels of contaminant concentrations measured by testing shall not exceed the following:</p> <ol style="list-style-type: none"> <li>1. Carbon Monoxide (CO): 9 parts per million, not to exceed outdoor levels by 2 parts per million;</li> <li>2. Formaldehyde: 27 parts per billion;</li> <li>3. Particulates (PM10): 50 micrograms per cubic meter;</li> <li>4. 4-Phenylcyclohexene (4-PCH): 6.5 micrograms per cubic meter; and</li> <li>5. Total Volatile Organic Compounds (TVOC): 300 micrograms per cubic meter.</li> </ol> <p><b>A5.504.2.1.2 Test protocols.</b> Testing of indoor air quality should include the elements listed in Items 1 through 4.</p> <p><b>A5.504.2.1.3 Noncomplying building areas.</b> For each sampling area of the building exceeding the maximum concentrations specified in CALGreen Section A5.504.2.1.1, flush out with outside air and retest samples taken from the same area. Repeat the procedures until testing demonstrates compliance.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>5.504.3 Covering of duct openings and protection of mechanical equipment during construction.</b> At the time of rough installation and during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.</p>	<input checked="" type="checkbox"/>		

<p><b>5.504.4 Finish material pollutant control.</b> Finish materials shall comply with CALGreen Sections 5.504.4.1 through 5.504.4.6.</p>			
<p><b>5.504.4.1 Adhesives, sealants, caulks.</b> Adhesives and sealants used on the project shall meet the requirements of the following standards.</p>	<input checked="" type="checkbox"/>		
<p>1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in CALGreen Tables 5.504.4.1 and 5.504.4.2.</p>	<input checked="" type="checkbox"/>		
<p>2. Aerosol adhesives and smaller unit sizes of adhesives and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of <i>California Code of Regulations</i>, Title 17, commencing with Section 94507.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>5.504.4.3 Paints and coatings.</b> Architectural paints and coatings shall comply with CALGreen Table 5.504.4.3 unless more stringent local limits apply.</p>	<input checked="" type="checkbox"/>		
<p><b>5.504.4.3.1 Aerosol paints and coatings.</b> Aerosol paints and coatings shall meet the Product-Weighted MIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances (CCR, Title 17, Section 94520, et seq.).</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>5.504.4.3.2 Verification.</b> Verification of compliance with this section shall be provided at the request of the enforcing agency.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>5.504.4.4 Carpet systems.</b> All carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in CALGreen Section 5.504.4.4.</p>			<input checked="" type="checkbox"/>
<p><b>5.504.4.4.1 Carpet cushion.</b> All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.</p>	<input checked="" type="checkbox"/>		
<p><b>5.504.4.4.2 Carpet adhesive.</b> All carpet adhesive shall meet the requirements of CALGreen Table 5.504.4.1.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>5.504.4.5 Composite wood products.</b> Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in CALGreen Table 5.504.4.5.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>A5.504.4.5.1 No added formaldehyde, Tier 1.</b> Use composite wood products approved by the ARB as no-added formaldehyde (NAF) based resins or ultra-low emitting formaldehyde (ULEF) resins.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
<p><b>5.504.4.5.3 Documentation.</b> Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:</p>			
<p>1. Product certifications and specifications.  2. Chain of custody certifications.  3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).  4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.  5. Other methods acceptable to the enforcing agency.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		

continued





**SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>**

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<p><b>A5.504.5.3.1 Filters, Tier 1.</b> In mechanically ventilated buildings, provide regularly occupied areas of the building with air infiltration media for outside and return air prior to occupancy that provides at least a MERV of 11.</p> <p><b>A5.504.5.3.1.1 Filters, Tier 2.</b> In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 13.</p>			
<p><b>5.504.7 Environmental tobacco smoke (ETS) control.</b> Prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows where outdoor areas are provided for smoking and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University or campus of the University of California, whichever are more stringent.</p>	<input checked="" type="checkbox"/>		
<b>Indoor Moisture and Radon Control</b>			
<p><b>5.505.1 Indoor moisture control.</b> Buildings shall meet or exceed the provisions of <i>California Building Code</i>.</p>	<input checked="" type="checkbox"/>		
<b>Air Quality and Exhaust</b>			
<p><b>5.506.1 Outside air delivery.</b> For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 of the <i>California Energy Code</i> and Chapter 4 of CCR, Title 8 or the applicable local code, whichever is more stringent.<sup>3</sup></p>	<input checked="" type="checkbox"/>		
<p><b>5.506.2 Carbon dioxide (CO<sub>2</sub>) monitoring.</b> For buildings or additions equipped with demand control ventilation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, CCR, Section 120(c)(4)<sup>3</sup>.</p>	<input checked="" type="checkbox"/>		
<b>Environmental Comfort</b>			
<p><b>A5.507.1 Lighting and thermal comfort controls.</b> Provide controls in the workplace as described in CALGreen Sections A5.507.1.1 and A5.507.1.2.</p> <p><b>A5.507.1.1 Single-occupant spaces.</b> Provide individual controls that meet energy use requirements in the <i>California Energy Code</i> by Sections A5.507.1.1.1 and A5.507.1.1.2.</p> <p><b>A5.507.1.1.1 Lighting.</b> Provide individual task lighting and/or daylighting controls for at least 90% of the building occupants.</p> <p><b>A5.507.1.1.2 Thermal comfort.</b> Provide individual thermal comfort controls for at least 50% of the building occupants by Items 1 and 2 in CALGreen Section A5.507.1.1.2.</p> <p><b>A5.507.1.2 Multi-occupant spaces.</b> Provide lighting and thermal comfort system controls for all shared multi-occupant spaces.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A5.507.2 Daylight.</b> Provide daylight spaces as required for toplighting and sidelighting in the <i>California Energy Code</i>. In constructing a design, consider Items 1 through 4 in CALGreen Section A5.507.3.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>A5.507.3 Views.</b> Achieve direct line of sight to the outdoor environment via vision glazing between 2'-6" and 7'-6" above finish floor for building occupants in 90% of all regularly occupied areas.</p> <p><b>A5.507.3.1 Interior office spaces.</b> Entire areas of interior office spaces may be included in the calculation if at least 75% of each area has direct line of sight to perimeter vision glazing.</p> <p><b>A5.507.3.2 Multi-occupant spaces.</b> Include in the calculation the square footage with direct line of sight to perimeter vision glazing.</p>		<input type="checkbox"/>	<input type="checkbox"/>

<p><b>5.507.4 Acoustical control.</b> Employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or OITC determined in accordance with ASTM E1332, using either the prescriptive or performance method in CALGreen Section 5.507.4.1 or 5.507.4.2.</p>	<input checked="" type="checkbox"/>		
<p><b>5.507.4.1 Exterior noise transmission, prescriptive method.</b> Wall and floor-ceiling assemblies exposed to the noise source making up the building envelope shall have exterior wall and roof ceiling assemblies meeting a composite STC rating of at least 50 or a composite OITC rating of no less than 40 with exterior windows of a minimum STC of 40 or OITC of 30 in the locations described in Items 1 and 2. Also applies to addition envelope or altered envelope.</p>	<input checked="" type="checkbox"/>		
<p><b>5.507.4.1.1 Noise exposure where noise contours are not readily available.</b> Buildings exposed to a noise level of 65 dB Leq-1Hr during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). Also applies to addition or alteration exterior wall.</p>	<input checked="" type="checkbox"/> or <input checked="" type="checkbox"/>		
<p><b>5.507.4.2 Performance method.</b> For buildings located as defined in CALGreen Sections A5.507.4.1 or A5.507.4.1.1, wall and roof-ceiling assemblies making up the building envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation. Also applies to addition envelope or altered envelope.</p>	<input checked="" type="checkbox"/>		
<p><b>5.507.4.2.1 Site features.</b> Exterior features such as sound walls or earth berms may be utilized as appropriate to the project to mitigate sound migration to the interior. Also applies to addition envelope or altered envelope.</p>	<input checked="" type="checkbox"/>		
<p><b>5.507.4.2.1 Documentation of compliance.</b> An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.</p>	<input checked="" type="checkbox"/>		
<p><b>5.507.4.3 Interior sound transmission.</b> Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.</p>			

*continued*

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<b>Outdoor Air Quality</b>			
<p><b>5.508.1 Ozone depletion and global warming reductions.</b> Installations of HVAC, refrigeration and fire suppression equipment shall comply with CALGreen Sections 5.508.1.1 and 5.508.1.2.</p> <p><b>5.508.1.1 CFCs.</b> Install HVAC and refrigeration equipment that does not contain CFCs.<sup>3</sup></p> <p><b>5.508.1.2 Halons.</b> Install fire suppression equipment that does not contain Halons.<sup>1</sup></p> <p><b>A5.508.1.3 Hydrochlorofluorocarbons (HCFCs).</b> Install HVAC and refrigeration equipment that does not contain HCFCs.</p> <p><b>A5.508.1.4 Hydrofluorocarbons (HFCs).</b> Install HVAC complying with either of the following:</p> <ol style="list-style-type: none"> <li>1. Install HVAC, refrigeration and fire suppression equipment that do not contain HFCs or that do not contain HFCs with a global warming potential greater than 150.</li> <li>2. Install HVAC and refrigeration equipment that limit the use of HFC refrigerant through the use of a secondary heat transfer fluid with a global warming potential no greater than 1.</li> </ol>	<p>As applicable</p> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/>
<p><b>5.508.2 Supermarket refrigerant leak reduction.</b> New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.</p> <p><b>Exception:</b> Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO<sub>2</sub>), and potentially other refrigerants.</p>	<input checked="" type="checkbox"/> <p>As applicable</p>		
<p><b>5.508.2.1 Refrigerant piping.</b> Piping compliant with the <i>California Mechanical Code</i> shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than ¼ inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.</p> <p><b>5.508.2.1.1 Threaded pipe.</b> Threaded connections are permitted at the compressor rack.</p> <p><b>5.508.2.1.2 Copper pipe.</b> Copper tubing with an OD less than ¼ inch may be used in systems with a refrigerant charge of 5 pounds or less.</p> <p><b>5.508.2.1.2.1 Anchorage.</b> ¼ inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.</p> <p><b>5.508.2.1.3 Flared tubing connections.</b> Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.</p> <p><b>Exception:</b> Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.</p> <p><b>5.508.2.1.4 Elbows.</b> Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.</p> <p><b>5.508.2.2 Valves.</b> Valves and fittings shall comply with the <i>California Mechanical Code</i> and as follows.</p> <p><b>5.508.2.2.1 Pressure relief valves.</b> For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.</p> <p><b>5.508.2.2.1.1 Pressure detection.</b> A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.</p> <p><b>5.508.2.2.2 Access valves.</b> Only Schrader access valves with a brass or steel body are permitted for use.</p> <p><b>5.508.2.2.2.1 Valve caps.</b> For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.</p> <p><b>5.508.2.2.2.2 Seal caps.</b> If designed for it, the cap shall have a neoprene O-ring in place.</p> <p><b>5.508.2.2.2.2.1 Chain tethers.</b> Chain tethers to fit over the stem are required for valves designed to have seal caps.</p> <p><b>Exception:</b> Valves with seal caps that are not removed from the valve during stem operation.</p> <p><b>5.508.2.3 Refrigerated service cases.</b> Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.</p> <p><b>5.508.2.3.1. Coil coating.</b> Consideration shall be given the heat transfer efficiency of coil coating to maximize energy efficiency.</p>			

continued

SECTION A5.602  
NONRESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST—continued<sup>4</sup>

APPLICATION CHECKLIST FOR BSC	MANDATORY	VOLUNTARY <sup>1</sup>	
		CALGreen Tier 1	CALGreen Tier 2
<p><b>5.508.2.4 Refrigerant receivers.</b> Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.</p> <p><b>5.508.2.5 Pressure testing.</b> The system shall be pressure tested during installation prior to evacuation and charging.</p> <p style="padding-left: 20px;"><b>5.508.2.5.1 Minimum pressure.</b> The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.</p> <p style="padding-left: 20px;"><b>5.508.2.5.2 Leaks.</b> Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.</p> <p style="padding-left: 20px;"><b>5.508.2.5.3 Allowable pressure change.</b> The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.</p> <p><b>5.508.2.6 Evacuation.</b> The system shall be evacuated after pressure testing and prior to charging.</p> <p style="padding-left: 20px;"><b>5.508.2.6.1 First vacuum.</b> Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.</p> <p style="padding-left: 20px;"><b>5.508.2.6.2 Second vacuum.</b> Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.</p> <p style="padding-left: 20px;"><b>5.508.2.6.3 Third vacuum.</b> Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.</p>			

1. Green building measures in this table may be mandatory if adopted by a city, county, or city and county as specified in CALGreen Section 101.7.
2. Required prerequisite for this Tier.
3. These measures are currently required elsewhere in statute or in regulation.
4. This application checklist is non-regulatory, intended only as an aid to the user and may not contain complete code language. Refer to Chapter 5 and Appendix Chapter A5 for complete code provisions.

Sec. 418. **URGENCY CLAUSE.** The City finds and declares that this ordinance is required for the immediate protection of the public peace, health, and safety for the following reasons: The regulations contained in this ordinance are necessary to safeguard life, limb, health, property and public welfare of persons within the City by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures erected or to be erected; by regulating certain grading operations; by regulating elevator maintenance and installations; by regulating electrical installations and plumbing systems; by regulating the design, construction, installation, alteration, repair, quality of materials, location, operation and maintenance of heating, ventilating, air-conditioning and refrigeration equipment and other miscellaneous heat-producing appliances installed in the City; and by identifying mandatory and voluntary green building measures. These regulations will protect residents and visitors of the City of Los Angeles by bringing the City's building standards in line with the State of California's Building Standards Code (California Code of Regulations Title 24) that will take effect January 1, 2017. Without the building standards contained in this ordinance, regulated structures, systems and building activity may present an immediate threat to the health and safety of all persons in the City. In order to address this threat the regulations contained in this ordinance must take effect immediately. For all of these reasons, this ordinance shall become effective upon publication pursuant to Section 253 of the Los Angeles City Charter.

Sec. 419. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy, either in a daily newspaper circulated in the City of Los Angeles or by posting for ten days in three public places in the City of Los Angeles: one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall; one copy on the bulletin board located at the Main Street entrance to the Los Angeles City Hall East; and one copy on the bulletin board located at the Temple Street entrance to the Los Angeles County Hall of Records.

I hereby certify that this ordinance was passed by the Council of the City of Los Angeles, **by a vote of not less than three-fourths** of all its members, at its meeting of

DEC 13 2016

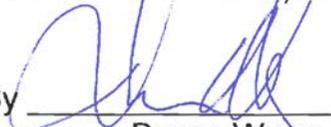
HOLLY L. WOLCOTT, City Clerk

By   
Deputy

Approved DEC 20 2016

  
ACTING Mayor

Approved as to Form and Legality  
MICHAEL N. FEUER, City Attorney

By   
Donna Wong  
Deputy City Attorney

Date December 7, 2016

File No. 13-1214