

CALIFORNIA GREEN BUILDING STANDARDS CODE – MATRIX ADOPTION TABLE

CHAPTER 3 – GREEN BUILDING

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	SFM	HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			1	2	1-AC	AC	SS	1	2	3	4								
Adopt entire CA chapter																			
Adopt entire chapter as amended (amended sections listed below)																			
Adopt only those sections that are listed below	X		X				X	X	X	X									
Chapter/Section																			
301	X		X				X	X	X	X									
301.1			X																
301.1.1			X																
301.2			X																
301.3	X																		
302	X		X				X	X	X	X									
303	X		X				X	X	X	X									
304	X		X					X	X	X									
304.1.1 (2nd paragraph)			X																
305								X											
306							X												

CHAPTER 3

GREEN BUILDING

SECTION 301 GENERAL

301.1 Scope. Buildings shall be designed to include the green building measures specified as mandatory in this code. Voluntary green building measures are also included in this code and may be included in the design and construction of structures covered by this code, but are not required unless they are part of Tier 1 or Tier 2. The checklists in Table A4.602 and Table A5.602 are for reference only.

301.1.1 Additions and alterations (HCD). The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings as specified in Section 101.3.

Exception: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, *et seq.*, for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 Low-rise and high-rise residential buildings. [HCD] The provisions of individual sections of *CALGreen* may apply to either low-rise residential buildings, high-rise residential buildings, or both. Individual sections will be designated by

banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

301.3 Nonresidential additions and alterations (BSC). The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions, and/or building alterations as specified in Section 101.3. Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work. A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and alterations [AA]. When the code section applies to both, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 Mixed occupancy buildings. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 Phased projects. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

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303.1.1 Tenant improvements. The provisions of this code shall apply to the initial tenant or occupant improvements to a project and to any future alteration that falls under the scope of Section 1.101.3.

SECTION 304 VOLUNTARY TIERS

304.1 Purpose. Voluntary tiers are intended to further encourage building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment and promote a more sustainable design.

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304.1.1 Tiers. The provisions of Appendices A4 and A5 outline the means of achieving enhanced construction levels by incorporating additional green building measures. Buildings complying with tiers specified for each occupancy contain additional prerequisite and elective green building measures necessary to meet the threshold of each tier.

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

SECTION 305 [OSHPD 1] CALGreen TIER 1 AND CALGreen TIER 2

305.1 CALGreen Tier 1 and CALGreen Tier 2 buildings contain voluntary green building measures necessary to meet the threshold of each level.

305.1.1 CALGreen Tier 1. To achieve *CALGreen* Tier 1, buildings must comply with the latest edition of "Savings By Design, Healthcare Modeling Procedures" found online at http://www.energysoft.com/main/page_downloads_sbd_healthcare.html.

305.1.2 CALGreen Tier 2. To achieve *CALGreen* Tier 2, buildings must exceed the latest edition of "Savings By Design, Healthcare Modeling Procedures" by a minimum of 15 percent.

SECTION 306 [DSA-SS] VOLUNTARY MEASURES

306.1 Purpose. For public schools and community colleges, Appendix A5, Nonresidential Voluntary Measures, is provided as a guideline to further encourage building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment, promote a more sustainable design and high-performance educational facilities.

306.1.1 The optional provisions of Appendix A5, Divisions A5.1 through A5.5, outline means of achieving enhanced construction levels by incorporating additional measures that exceed the mandatory code.

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The state agency does not adopt sections identified by the following symbol: †.

Division 4.1 – PLANNING AND DESIGN

4.101.1 Scope. The provisions of this division outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

4.102.1 Definitions. The following terms are defined in Chapter 2.

**SECTION 4.105
DECONSTRUCTION AND REUSE
OF EXISTING STRUCTURES
(Reserved)**

4.106.1 General. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.3 Grading and paving. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

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4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric Vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation of electric vehicle supply equipment (EVSE). EVSE and all devices related to EV charging shall be installed in accordance with *California Electrical Code*, Article 625.

Notes:

1. Due to logistics related to EV charging, this section may apply to nonresidential occupancies, e.g., garages, which either are accessory to or support residential (R) occupancies.
2. The Society of Automotive Engineers (SAE) International Surface Vehicle Recommended Practice, J1772, "SAE Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler," Table 5.2 AC Charging Electrical Ratings (North America), October 2012, references the AC Level 2 charge method as 208 to 240-volt AC, single phase, and up to 80 amperes.

4.106.4.1 One- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or a subpanel and shall terminate in close proximity to the proposed location of the charging system into a listed cabinet, box or other enclosure. Raceways are required to be continuous at enclosed or concealed areas and spaces. A raceway may terminate in an attic or other approved location when it can be demonstrated that the area is accessible and no removal of materials is necessary to complete the final installation. The panel or subpanel shall have sufficient capacity to support at least Level 2 EVSE.

Exception: Equivalent installation methods approved by the department.

4.106.4.1.1 Labeling requirement. A label stating "EV CAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

4.106.4.2 Multifamily dwellings. At least five (5) percent of the total parking spaces provided for all types of parking facilities, but in no case less than one location, shall be capable of supporting future EVSE.

4.106.4.2.1 Single charging location required. When only a single charging location is required, install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate in close proximity to the proposed loca-

tion of the charging system into a listed cabinet, box or enclosure. The panel or subpanel shall have sufficient capacity to support at least Level 2 EVSE.

Exception: Equivalent installation methods approved by the department.

4.106.4.2.2 Multiple charging locations required. When multiple charging locations are required, plans shall indicate the proposed type and location of EVSE and also include raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all electric vehicles at all designated EV-charging locations at their full rated amperage. Plan design shall be based upon Level 2 or greater EVSE at its maximum operating ampacity. Only underground raceways and related underground components are required to be installed at the time of construction.

4.106.4.2.3 Labeling requirement. A label stating "EV CAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

Notes:

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives under number 13-01. Website: www.dot.ca.gov/hq/traffops/signtech/signdel/policy.htm
2. See *California Vehicle Code* Section 22511 for EV-charging space signage in off-street parking facilities and for use of EV-charging spaces.
3. The Governor's Office of Planning and Research (OPR) published a Zero-Emission Vehicle Community Readiness Guidebook, which provides helpful information for local governments, residents and businesses. Website: http://opr.ca.gov/docs/ZEV_Guidebook.pdf
4. The Governor's Office of Planning and Research (OPR) has developed draft guidelines, "Plug-In Electric Vehicles: Universal Charging Access Guidelines and Best Practices," addressing physical accessibility standards and design guidelines for EVs. Website: http://opr.ca.gov/docs/PEV_Access_Guidelines

4.106.5 Reserved.

4.106.7 Reduction of heat island effect for nonroof areas [N]. Reduce nonroof heat islands for 25 percent of pathways, patios, driveways or other paved areas by using one or more of the methods listed.

1. Trees or other plantings to provide shade and that mature within 5 years of planting. Trees shall be suitable in mature size and environmental requirements for the site.

2. Use high albedo materials with an initial solar reflectance value of at least .30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E1918 or C1549;
3. Use open grid pavement system or pervious or permeable pavement system;
4. Use solar panel arrays to create a canopy shade system;
or
5. Other methods of reducing heat island effects acceptable to the department.