



California Green Building Standards Code Coming Soon

In early 2010, the California State Building Standards Commission voted to adopt a Green Building Standards Code for application in California. This is the first Green Code to be adopted in the state, and it contains several new provisions that will directly affect construction practices. The new code is commonly known as "Calgreen" (Code). Compliance with the new Code will become mandatory statewide beginning January 1, 2011. All plans submitted on or after that date will be required to meet the Code. In addition, new requirements for indoor water-use reductions will become effective July 1, 2011.

Some of the new requirements contained in the Calgreen code include:

Residential

Energy Efficiency

- Must use 15 percent less energy than current California Energy Code to qualify for optional Tier 1 and Tier 2 status.

Water Efficiency and Conservation

- Effective July 1, 2011 a 20 percent savings is required on indoor water use with two different options to demonstrate compliance.
- Flow rates will be reduced to 2 gpm for showerheads, 1.5 gpm on lavatories, 1.8 gpm on kitchen sinks and 1.28 gpm on toilets.
- Multiple shower heads serving one shower are limited to 2 gpm total combined flow or the shower must be designed to only allow one showerhead to operate at a time. Alternately, if a calculation demonstrating a 20 percent savings throughout the entire dwelling is provided, the combined flow may be increased to 2.5 gpm.
- Irrigation controllers provided by the builder and installed at the time of final inspection must be weather or soil-moisture based.

Material Conservation and Resource Efficiency

- A minimum of 50 percent of non-hazardous construction waste must be recycled and/or salvaged for reuse.
- A construction-waste management plan will be required.
- A building systems operation and maintenance manual must be placed in the building at time of final inspection.

Environmental Quality

- Duct openings and mechanical equipment must be protected from contaminants.
- Finish materials must meet minimum VOC and formaldehyde limits.
- A vapor barrier must be provided over a 4-inch thick base of ½ inch or larger clean aggregate and must be in direct contact with concrete.
- Concrete mix design must address bleeding, shrinkage, and curling issues.

- Building materials may not be enclosed when moisture content exceeds 19 percent.
- Bathroom fans must be Energy Star compliant and must be controlled by a humidistat.
- Whole-house exhaust fans must have insulated louvers or covers which close when the fan is off.
- Heating and air-conditioning systems will need to be sized and designed to meet energy-conservation standards, and equipment used in the building must be selected using specifically accepted methods.

Commercial

Planning and Design

- A stormwater-pollution prevention plan is required for newly constructed projects less than one acre.
- Short-term bicycle parking is required for all projects.
- Long-term bicycle parking is required on projects with 10 tenant occupants or more.
- Designated specially marked parking stalls are required for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles.
- Light-pollution reduction is required for interior and exterior lighting.
- Sites must be graded to prevent water from entering buildings.

Energy Efficiency

- Must comply with current California Energy Code.
- Must use 15 percent less energy than current California Energy Code to qualify for optional Tier 1 and Tier 2 status.

Water Efficiency and Conservation

- Separate water metering is required for tenant spaces or certain uses projected to consume more than 100 gal/day.
- Effective July 1, 2011, a 20 percent savings is required on indoor water use, with two different options to demonstrate compliance.
- Flow rates will be reduced to 2 gpm for showerheads, 1.5 gpm on lavatories, 1.8 gpm on kitchen sinks and 1.28 gpm on toilets.
- Multiple shower heads serving one shower are limited to 2 gpm total combined flow or that shower must be designed to only allow one showerhead to operate at a time. When a calculation demonstrating a 20% saving throughout the entire building/tenant space is provided the combined flow may be increased to 2.5gpm.
- A water budget must be developed for landscape irrigation conforming to local ordinances or a state model ordinance were no local ordinance is available. The City of Redding has such an ordinance in place.
- New water services for landscaped areas between 1,000 and 5,000 square feet must be provided with separate water meters.
- Weather or soil-moisture based irrigation controllers must be installed in landscaped areas between 1,000 and 2,500 square feet.

Material Conservation and Resource Efficiency

- Exterior weather protection is required.
- Moisture-control measures must be provided which keep landscape sprinklers from spraying on structures and which prevent water intrusion into buildings from wind-driven rains and foot traffic.

- A construction waste-management plan will be required. A minimum of 50 percent of non-hazardous construction waste must be recycled and/or salvaged for reuse.
- Readily accessible areas are required for depositing, storage, and collection of non-hazardous materials for recycling.
- Building commissioning consisting of an owner's project requirements report, basis of design report, commissioning plan, functional performance testing, documentation and training, and a commissioning report are required for new buildings over 10,000 square feet in area.
- Buildings less than 10,000 square feet in size will need a less extensive "testing and adjusting" of HVAC, lighting, water heating, renewable energy, landscape irrigation, and water-reuse systems.

Environmental Quality

- Fireplaces must be EPA Phase II.
- Duct openings and mechanical equipment must be protected from contaminants.
- Finish materials must meet minimum VOC and formaldehyde limits.
- Chapters 12 and 14 of the California Building Code must be met to control indoor moisture.
- Indoor air must comply with ventilation requirements.
- CO2 sensors are required on buildings with demand-control ventilation systems.
- Buildings within 1,000 feet of a freeway, 5 miles of large airports (Redding Municipal Airport is not considered large) and where sound levels at the property line regularly exceed 65 decibels, will have to have noise-transmission ratings of at least STC 50 for walls and STC 30 for windows.
- Wall and floor-ceiling assemblies separating tenant spaces must have an STC rating of at least 40.
- HVAC, refrigeration, and fire suppression equipment will not be allowed to use chlorofluorocarbons or halons.