



2010 CALGreen Additions and Alterations to Existing Non-Residential Buildings Mandatory Measures Checklist

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Feature or Measure	Required
PLANNING AND DESIGN	
Site Development 5.710.6	
<p>Storm water pollution prevention. Additions that disturb less than one acre of land shall prevent the pollution of stormwater runoff from the construction activities through one or more of the following measures:</p> <ol style="list-style-type: none"> 1. Local ordinance. Comply with a lawfully enacted stormwater management and/or erosion control ordinance. 2. Best management practices (BMP). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP. 	
<p>Short-term bicycle parking. If the project is anticipated to generate visitor traffic and adds 10 or more vehicular parking spaces, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of the additional visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.</p>	
<p>Long-term bicycle parking. For buildings with over 10 tenant-occupants that add 100 or more vehicular parking spaces, provide secure bicycle parking for 5% of additional motorized vehicle parking capacity, with a minimum of one space.</p>	
<p>Designated parking. For projects that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles as shown on Table 5.106.5.2.</p> <p>Parking stall marking. Paint "CLEAN AIR/" with last word aligned with the end of the stall striping. "VANPOOL/EV"</p>	
<p>Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Exception: Additions and alterations not altering drainage path.</p>	
WATER EFFICIENCY AND CONSERVATION	
Indoor Water Use (5.712.3)	
Meters. Separate submeters or metering devices shall be installed for the uses described below:	
<p>Additions to existing buildings in excess of 50,000 square feet.</p> <ol style="list-style-type: none"> 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. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: <ol style="list-style-type: none"> a) Makeup water for cooling towers where flow through is greater than 500 gpm b) Makeup water for evaporative coolers greater than 6gpm c) Steam and hot-water boilers with energy input more than 500,000 Btu/h 	

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Excess consumption. Separate submeters or metering devices shall be installed for any addition or added space within an addition that is projected to consume more than 1,000 gal/day.	
20% Savings. A schedule of plumbing fixtures and fixture fitting that will reduce the overall use of potable water within the building by 20% shall be provided. The 20% reduction shall be achieved by one of the following methods (Prescriptive or Performance):	
Prescriptive method. Each plumbing fixture and fitting shall not exceed the max. flow rate at $\geq 20\%$ reduction as specified in Table 5.303.2.3, or	
Performance method. A calculation demonstrating a 20% reduction in the building "water use baseline" as established in Table 5.303.2.2 shall be provided.	
Multiple showerheads serving one shower. When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads shall not exceed the maximum flow rates specified in the 20% reduction column contained in Table 5.303.2.3 or the shower shall be designed to only allow one showerhead to be in operation at a time.	
Plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall meet the standards referenced in Table 5.303.6.	
Outdoor Water Use (5.712.4)	
Water budget. A water budget shall be developed for landscape irrigation use.	
Outdoor potable water use. For building addition or alteration requiring upgraded water service for landscaped areas of at least 1000 square feet but not more than 5000 square feet, separate meters or submeters or metering devices shall be installed for outdoor potable water use	
Irrigation design. In building addition or alteration requiring with at least 1000 but not more than 2500 square feet of landscaped area, automatic irrigation systems controllers installed at the time of final inspection shall be weather-based with rain sensor or soil moisture-based.	
MATERIAL CONSERVATION AND RESOURCE	
Water Resistance and Moisture Management (5.713.7)	
Weather protection. Provide a weather-resistant exterior wall and foundation envelope.	
Moisture control. Employ moisture control measures by the following methods:	
Sprinklers. Prevent irrigation spray on structures.	
Entries and openings. Design exterior entries and openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings.	
Construction Waste Reduction, Disposal and Recycling (5.713.8)	
Construction waste management. A minimum of 50% of the non-hazardous construction waste generated at the site shall be diverted to recycle or salvaged. This is achieved by submitting a Waste Management Plan for approval by the Building and Safety Department prior to demolition permit issuance and providing documentation to demonstrate compliance with the Waste Management Plan after completion of demolition and/or prior to final inspection.	
Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.	
Building Maintenance and Operation (5.713.10)	
Recycling by occupants. If not provided on the existing site and where site conditions permit, provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling (at a minimum) paper, corrugated cardboard, glass, plastics and metals in accordance with one of the following :	
1. For additions or alterations by an owner or a tenant conducted within a 12-month period under single or multiple permits resulting in an increase of 30% or more in floor area.	

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2. For additions or alterations by an owner or a tenant for which multiple permits are applied within a 12-month period resulting in an increase of 30% or more in floor area.	
Testing and adjusting. Testing and adjusting of new systems installed to serve an addition or alteration subject to section 5.701.1 shall be required.	
Systems. Develop a written plan of procedures for testing and adjusting systems.	
Procedures. Perform testing and adjusting procedures in accordance with industry best practices and applicable national standards on each system.	
HVAC balancing. Before a new space-conditioning system serving a building or space is operated for normal use, the system should be balanced in accordance with the procedures defined by national standards.	
Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.	
Operation and maintenance manual. Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.	
Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.	
ENVIRONMENTAL QUALITY	
Fireplaces (5.714.3)	
Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove.	
Pollutant Control (5.714.4)	
The permanent HVAC system shall only be used during construction if necessary to condition the building within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a MERV of 8. Replace all filters immediately prior to occupancy.	
Duct openings and other related air distribution component openings shall be covered during construction.	
Adhesives, sealants and caulks shall be compliant with VOC and other toxic compounds limits.	
Paints, stains and other coatings shall be compliant with VOC limits.	
Aerosol paints and coatings shall be compliant with Product-Weighted MIR limits for ROC, VOC and other toxic compounds limits.	
Carpet and carpet systems shall be compliant with VOC and formaldehyde emission limits.	
At least 50% of floor area receiving resilient flooring shall comply with the VOC-emission limits defined in the Collaborative for High Performance Schools (CHPS) Low-emitting Materials List or be certified under the Resilient Floor Covering Institute (RCFI) FloorScore program.	
Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior or exterior finish systems shall comply with formaldehyde emission limits per Table 5.504.4.5.	
Documentation shall be provided to the City building inspector verifying that compliant finish materials have been used.	
Filters. 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 MERV of 8.	
Environmental tobacco smoke (ETS) control. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and in buildings.	

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<p>Carbon dioxide (CO2) monitoring. For buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with 2010 California Energy Code sec. 121(c).</p>	
<p>Environmental Comfort (5.714.7)</p>	
<p>Acoustical Control. Employ building assemblies and components with Sound Transmission Class (STC) values using one of the following methods:</p>	
<p>Prescriptive method - Exterior noise transmission. Wall and roof ceiling assemblies making up the building envelope shall have a min. STC of 50, or a composite OITC rating of no less than 40, with exterior windows of a min. STC of 40 or OITC of 30 in the following locations:</p> <ol style="list-style-type: none"> 1. Within the 65 CNEL noise contour of an airport. 2. Within the 65 CNEL or L_{dn} noise contour of a freeway, railroad, industrial source or fixed-guideway source. <p>Buildings exposed to a noise level of 65 dB L_{eq}-1-hr during any hour of operation shall have exterior wall and roof-assemblies of at least 45 STC (or OITC 35), with exterior windows of a min. STC of 40 (or OITC 30)</p>	
<p>Performance method For buildings located as defined in sec. A5.507.4.1 or A5.507.4.1.1, wall and roof-ceiling assemblies shall be constructed to provide L_{eq}-1-hr of 50 dBA in occupied areas during any hour of operation. An acoustical analysis documenting compliance shall be provided.</p>	
<p>Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have a min. STC of 40.</p>	
<p>Outdoor Air Quality (5.714.8)</p>	
<p>Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall not contain Chlorofluorocarbons (CFCs) and Halons.</p>	