



# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

## Building Division

Economic and Community Development  
 34009 Alvarado-Niles Road  
 Union City, CA 94587  
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### CALGREEN NON-RESIDENTIAL BUILDING PLAN SUBMITTAL CHECKLIST

This checklist shall be used for nonresidential projects that meet one of the following: new construction, building additions of 1,000 sq. ft. or greater or building alterations with a permit valuation of \$200,000 or more. The requirements shall apply only to the specific area of the addition or alteration. Initial tenant improvements are also subject to the mandatory measures. Subsequent tenant improvements are exempt.

**Y** = Yes (section has been selected and/or included)

**N/A** = Not Applicable (Code section does not apply to the project, mainly used for additions and alterations)

**O** = Other (provide explanation)

**[N]** = New construction

**[A]** = Additions and/or alteration

**BUILDING PERMIT #** \_\_\_\_\_ **ADDRESS:** \_\_\_\_\_

PLANNING AND DESIGN	Y	N/A	O	Plan sheet, Spec or Attach Reference
<b>SITE DEVELOPMENT (5.106)</b>				
<b>Storm water pollution control.</b> Newly constructed projects which disturb less than one acre of land shall prevent the pollution of storm water runoff from the construction activities through local ordinance per CG Section 5.106.1				
<b>Short-Term bicycle parking.</b> If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two bike capacity rack per CG Sect 5.106.4.1.1. <b>Long-Term bicycle parking.</b> For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space per CG Section 5.106.4.1.2				
<b>Electric vehicle (EV) charging.</b> (N) Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Sections 5.106.5.3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code. CG Section 5.106.5.3				

<p><b>Light pollution reduction.</b> Outdoor lighting systems shall be designed and installed to comply with requirements in the <i>California Energy Code</i> and in compliance with CG Section 5.106.8.</p>				
<p><b>Grading and Paving.</b> Construction plans to indicate how site grading and drainage system will manage all water flows to keep water from entering buildings. Examples found at CG Section 5.106.10. Alterations and additions are excluded.</p>				
<p><b>Shade trees.</b> Shade trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, ad 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6</p> <p><b>Surface parking areas.</b> Shade trees planting minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years. 5.106.12.1</p> <p><b>Landscape areas.</b> Shade tree planting, minimum # 10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.</p> <p><b>Hardscape areas.</b> Shade tree planting, minimum # 10 container size or equal shall be installed to provide shade of 20 percent of the hardscape area within 15 years.</p>				
<p><b>WATER EFFICIENCY AND CONSERVATION</b></p>				
<p><b>INDOOR WATER USE (CGC 5.303)</b></p>				
<p><b>Meters.</b> Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.</p> <p><b>Buildings 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,</li> </ol>				
<p>spaces used for laundry or cleaner, restaurant for food service, medical or dental office, laboratory or beauty salon or barber shop.</p> <ol style="list-style-type: none"> <li>2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystem: <ol style="list-style-type: none"> <li>a. Makeup water for cooling towers where flow through is greater than 500 gpm.</li> <li>b. Makeup water for evaporative coolers greater than 6 gpm.</li> <li>c. Steam and hot-water boilers with energy input more than 500,000 Btu/h.</li> </ol> </li> </ol> <p><b>Excess consumption.</b> A separate submeter or metering device shall be provided for any tenant within a building that is projected to consume more than 1,000 gal/day.</p>				
<p><b>Water conserving plumbing fixtures and fittings.</b> Plumbing fixtures (water closets and urinals) and fittings (faucets, fountains, and showerheads) shall comply with the prescriptive reduced flow rates specified in CGC 5.303.3.1 through 5.303.3.4.</p>				
<p><b>Commercial kitchen equipment.</b> Food waste disposers shall either modulate the use of water to no more than 1 gal/min when disposer is not in use or automatically shut off after 10 minutes of inactivity per CG Section 5.303.4.</p>				

Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in Chapter 6 of CGC.				
<b>OUTDOOR WATER USE (CGC 5.304)</b>				
<b>Outdoor potable water use in landscape areas.</b> Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. CG Section 5.304.1				
<b>Outdoor potable water use in landscape areas.</b> For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with 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> , except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35 5.304.6 <b>Ex:</b> Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO				
<b>Newly constructed landscapes.</b> New construction projects with an aggregate landscape area equal to or greater than 500 square feet. CG Section 5.304.6.1				
<b>Rehabilitated landscapes.</b> Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet. CG Section 5.304.2				
<b>MATERIAL CONSERVATION AND RESOURCE EFFICIENCY</b>				
<b>WEATHER RESISTANCE AND MOISTURE MANAGEMENT (CGC 5.407)</b>				
<b>Weather protection.</b> Provide a weather-resistant exterior wall and foundation envelope as required by <i>California Building Code</i> Section 1402.2 and <i>California Energy Code</i> Section 150, manufacturer's installation instructions or local ordinance, whichever is more stringent. CG Section 5.407.1				
<b>Moisture control.</b> Employ moisture control measures by the following methods; <b>Sprinklers.</b> Prevent irrigation spray on structures per CG Section 5.407.2.1. <b>Entries and openings.</b> Design exterior entries and openings to prevent water intrusion into buildings. CG Section 5.407.2.2.				
<b>CONSTRUCTION WASTE REDUCTION, DISPOSAL, AND RECYCLING (CGC 5.408)</b>				
<b>Construction waste management.</b> Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste. CG Section 5.408.1				
<b>Universal waste.</b> Additions and alterations that meet the scoping provisions in Section 301.3 shall provide verification that universal waste materials (fluorescent lamps and ballasts, mercury thermostats) are disposed of properly. CG Sect 5.408.2				
<b>Excavated soil and land clearing debris.</b> 100% of trees, stumps, rocks and associated vegetation resulting from land clearing shall be reused or recycled. CG Section 5.408.3				
<b>BUILDING MAINTENANCE AND OPERATION (CGC 5.410)</b>				

<p><b>Recycling by occupants.</b> Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials (including organic waste) for recycling. CG Sect 5.410.1.</p>				
<p><b>Commissioning.</b> For new buildings 10,000 square feet and over, building commissioning for all building systems covered by T24, Part 6, process systems and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include items listed in Section 5.410.2.  <b>Commissioning report.</b> A report of commissioning process activities undertaken through the design and construction phases of the building project shall be</p>				
<p>completed and provided to the owner or representative. CG Section 5.410.2.6.</p>				
<p><b>Testing and adjusting.</b> Testing and adjusting of systems shall be required for buildings less than 10,000 square feet. CG Section 5.410.4.  <b>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. CG Section 5.410.4.5.  <b>Inspections and reports.</b> Include a copy of all inspection verifications and reports required by the enforcing agency. CG Section 5.410.4.5.1.</p>				
<b>ENVIROMENTAL QUALITY</b>				
<b>FIREPLACES (CGC 5.503)</b>				
<p><b>Fireplaces.</b> Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove or a pellet stove, and refer to residential requirements in the <i>California Energy Code</i>, Title 24, Part 6, Subchapter 7, Section 150.  <b>Woodstoves.</b> Woodstoves and pellet stoves shall comply with US EPA New Source Performance Standards emission limits. CG Section 5.503.1.1.</p>				
<b>POLUTANT CONTROL (CGC 5.504)</b>				
<p><b>Temporary ventilation.</b> 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, 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. CG Section 5.504.1</p>				
<p><b>Covering of duct openings and protection of mechanical equipment during construction.</b> At the time of rough installation or 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, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system. CG Section 5.504.3.</p>				
<p><b>Finish material pollutant control.</b> Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.  <b>Adhesives, sealants and caulks.</b> Adhesives, sealants and caulks used on the project shall meet the requirements of the standards listed in CG Sect 5.504.4.1.</p>				

<p><b>Paints and coatings.</b> Architectural paints and coatings shall comply with Table 5.504.4.3 unless more stringent local limits apply.  <b>Verification.</b> Verification of compliance with this section shall be provided at the request of the enforcing agency. CG Section 5.504.4.3.2</p>				
<p><b>Carpet systems.</b> All carpet installed in the building interior shall meet the testing and product requirements of one of the standards listed in Section 5.504.4.4. Carpet cushion and adhesive also must comply.</p>				
<p><b>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 Table 5.504.4.5.  <b>Documentation.</b> Verification of compliance with this section shall be provided at the request of the enforcing agency. CG Section 5.504.4.5.3</p>				
<p><b>Resilient flooring systems.</b> 80% of flooring must comply with one of the following: the VOC emission limits defined in the 2012 CHPS criteria and listed on its High Performance Products Database; products certified under UL Greenguard Gold program; certified under the Resilient Floor Covering Institute FloorScore program; or meet California Department of Public Health 2010 Specifications. CG Section 5.504.4.6  <b>Verification of compliance.</b> Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. CG Section 5.504.4.7.1</p>				
<p><b>Filters.</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 MERV of 13. MERV 13 filters shall be installed after any flushed-out or testing and prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. CG Section 5.504.5.3</p>				
<p><b>Environmental tobacco smoke.</b> Prohibit smoking within 25 feet of building entries, outdoor intakes and operable windows. Post signage when local ordinances or policies are not in place. CG Section 5.504.7</p>				
<b>INDOOR MOISTURE CONTROL (CGC 5.505)</b>				
<p><b>Indoor moisture control.</b> Buildings shall meet or exceed the California Building Code, CCR, Title 24 Part 2, Sections 1202 (ventilation) and Chapter 14 (exterior walls). CG Section 5.505.1</p>				
<b>INDOOR AIR QUALITY (CGC 5.506)</b>				
<p><b>Outside air delivery.</b> For all ventilated spaces, meet the minimum requirements of Section 120.1 (requirements for ventilation) of the California Energy Code, or local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8. CG Section 5.506.1</p>				
<p><b>Carbon dioxide (CO2) monitoring.</b> Buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the California Energy Code, Section 120.1(c)(4).</p>				
<b>ENVIRONMENTAL COMFORT (CGC 5.507)</b>				
<p><b>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 E 1332, using either the prescriptive or performance method in Sections 5.507.4.1 or 5.507.4.2.</p>				
<b>OUTDOOR AIR QUALITY (CGC 5.508)</b>				

<p><b>Ozone depletion and greenhouse gas reductions.</b> Installation of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.</p> <p><b>Supermarket refrigerant leak reduction.</b> New commercial refrigeration systems shall comply with Section 5.508.2 when installed in retail food stores 8,000 square feet or more condition 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) refrigerant with a GWP of 150 or greater.</p>				
<b>INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS</b>				
<b>HVAC INSTALLER QUALIFICATION (CGC 702)</b>				
<p><b>HVAC installer training.</b> HVAC system installers shall be trained and certified in the proper installation of HVAC systems and equipment by a recognized training or certification program per CG Section 702.1.</p>				
<b>VERIFICATION (CGC 703)</b>				
<p><b>Compliance documentation.</b> Upon request, verification of compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the building department which will show substantial conformance.</p>				
<b>Responsible Designer's Declaration Statement</b>	<b>Contractor's Declaration Statement</b>			
<p>I hereby certify that this project has been designed to meet the requirements of the 2019 California Green Building Standards Code.</p>	<p>I hereby certify, as the building contractor or installer under the permit listed herein, that this project will be constructed to meet the requirements of the 2019 California Green Building Standards Code.</p>			
<b>Name:</b>	<b>Name:</b>			
<b>Signature:</b>	<b>Signature:</b>			
<b>Date:</b>	<b>Date:</b>			
<b>Company:</b>	<b>Company:</b>			
<b>Address:</b>	<b>Address:</b>			
<b>City/St/Zip</b>	<b>City/St/Zip</b>			