



CALGREEN NON-RESIDENTIAL CHECKLIST-MANDATORY ITEMS

PURPOSE:

The non-residential provisions of the 2016 CalGreen Code 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; establishes the means of conserving water used indoors, outdoors and in wastewater conveyance; outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

Project Name: _____

Project Address: _____

Project Description: _____

Instructions:

1. The Owner or the Owner’s agent shall employ a licensed professional experienced with the 2016 California Green Building Standards Codes to verify and assure that all required work described herein is properly planned and implemented in the project.
2. The licensed professional, in collaboration with the owner and the design professional shall initial **Column 2** of this checklist, sign and date **Section 1 - Design Verification** at the end of this checklist and have the checklist printed on the approved plans for the project.
3. Prior to final inspection by the Building Department, the licensed professional shall complete **Column 3** and sign and date **Section 2 - Implementation Verification** at the end of this checklist and submit the completed form to the Building Inspector.

MANDATORY FEATURE OR MEASURE	Column 2	Column 3
	Project Requirements	Verification
CHAPTER 5 – NONRESIDENTIAL MANDATORY MEASURES		
General Requirements		
The project meets all the requirements of Divisions 5.101 through 5.508.	<input type="checkbox"/>	<input type="checkbox"/>
Division 5.1 PLANNING AND DESIGN		
Planning and Design - Site Development		
5.106.1 Storm water pollution prevention. For projects of one acre or less, develop a Storm Water Pollution Prevention Plan (SWPPP) that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit or local ordinance, whichever is stricter, as is required for projects over one acre. The plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation and/or of dust/particulate matter air pollution.	<input type="checkbox"/>	<input type="checkbox"/>

<p>5.106.4 Bicycle parking. Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance, whichever is stricter.</p> <p>5.106.4.1.1 Short-Term bicycle parking. If the qualified 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 spaces being added, with a minimum of one two-bike capacity rack.</p> <p>5.106.4.1.2 Long-Term bicycle parking. For qualified buildings with over 10 tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicle parking spaces being added, with a minimum of one space.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>5.106.5.2 Designated parking for clean air vehicles. Provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.106.5.3 Electric vehicle (EV) charging. Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE).</p> <p>5.106.5.3.1 Single charging space requirements. When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the construction and shall be installed in accordance with the <i>California Electrical Cod</i>.</p> <p>5.106.5.3.2 Multiple charging spaces requirements. When multiple charging spaces are required per Table 5.106.5.3.3, raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the <i>California Electrical Code</i>.</p> <p>5.106.5.3.3 EV charging space calculation. Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.</p> <p>5.106.5.3.4 Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as “EV CAPABLE”.</p> <p>5.106.5.3.5 Future EV spaces count as designated parking. Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean sir vehicles.</p>	<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"/> <input type="checkbox"/>
<p>5.106.8 Light pollution reduction. Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> 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 2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and 3. Allowable BUG rating not exceeding those shown in Table 5.106.8, or <p>Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.106.10 Grading and paving. The site shall be planned and developed to keep surface water away from buildings. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows.</p>	<input type="checkbox"/>	<input type="checkbox"/>

Division 5.2 ENERGY EFFICIENCY

Performance Requirements

5.201.1 Scope. The California Energy Commission will continue to adopt mandatory building standards.

Division 5.3 WATER EFFICIENCY AND CONSERVATION

Indoor Water Use

5.303.1 Meters. Separate meters shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 New building or additions in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day.
2. Where separate submeters are unfeasible, for water supplied to the following systems:
 - a. Makeup water for cooling towers where flow through is greater than 500 gpm.
 - b. Makeup water for evaporative coolers greater than 6 gpm.
 - c. Steam and hot-water boilers with energy input > 500,000 Btu/h.

5.303.1.2 Excess consumption. A separate submeter shall be provided for any tenant within a new building or within an addition that is projected to consume > 1,000 gal/day.

5.303.3 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1. Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for tank-type toilets.

5.303.3.2 Urinals.

5.303.3.2.1 Wall-mounted urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted urinals. The effective flush volume of floor-mounted or other urinal shall not exceed .05 gallons per flush.

5.303.3.3 Showerheads.

5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

<p>5.303.3.4 Faucets and fountains.</p> <p>5.303.3.4.1 Nonresidential lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minutes at 60 psi.</p> <p>5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucet may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minutes at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minutes at 60 psi.</p> <p>5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minutes/20 [rim space (inches) at 60 psi.</p> <p>5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.</p> <p>5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 psi.</p>	<input type="checkbox"/> 	<input type="checkbox"/>
<p>5.303.4.1 Food waste disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Dipozers shall use no more than 8 gpm of water.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.303.5 Areas of additions or alteration. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alterations to the building.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.303.6 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code (CPC), and shall meet the applicable standards referenced in CPC Table 1401.1 and CalGreen Chapter 6.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Outdoor Water Use</p>		
<p>5.304.2 Outdoor use in landscape areas equal to or greater than 500 sq.ft. When water is used for outdoor irrigation for new construction projects, one of the following shall apply:</p> <p><input type="checkbox"/> 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)</p> <p><input type="checkbox"/> 2. The California Department of Water Resource Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulation.</p>	<input type="checkbox"/> 	<input type="checkbox"/>
<p>5.304.3 Outdoor water use in rehabilitated landscape projects equal to or greater than 2,500 sq.ft. Rehabilitated landscape projects shall comply with Section 5.304.2, Item 1 or 2.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.304.4 Outdoor water use in landscape areas of 2,500 sq.ft. or less. Any project with an aggregate landscape area of 2,500 sq.ft. or less may comply with the performance requirements of MWELO or conform to the prescriptive compliance measure contained in MWELO's Appendix D.</p>	<input type="checkbox"/>	<input type="checkbox"/>

5.304.5 Graywater or rainwater use in landscape areas. For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the projects that has less than 2,500 sq.ft. of landscape and meters 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).	<input type="checkbox"/>	<input type="checkbox"/>
Weather Resistance and Moisture Management		
5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by <i>California Building Code</i> Section 1403.2 and <i>California Energy Code</i> Section 150, manufacturer's installation instructions or local ordinance, whichever is more stringent. ¹	<input type="checkbox"/>	<input type="checkbox"/>
5.407.2 Moisture control. Employ moisture control measures by the following methods; 5.407.2.1 Sprinklers. Prevent irrigation spray on structures. 5.407.2.2 Entries and openings. Design exterior entries and/or openings to prevent water intrusion into buildings. 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 ft around and perpendicular to such openings plus at least one of the following: <ol style="list-style-type: none">1. An installed awning at least 4 ft in depth.2. The door is protected by a roof overhang at least 4 ft in depth.3. The door is recessed at least 4 ft.4. Other methods which provide equivalent protection. 5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Construction Waste Reduction, Disposal and Recycling		
5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent. 5.408.1.1 Construction waste management plan. Submit plan per this section to enforcement authority. 5.408.1.2 Waste management company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with CalGreen Section 5.408. 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65 percent minimum requirement as approved by the enforcing agency. 5.408.1.4 Documentation. Provide documentation of the waste management plan that meets the requirements listed in Section 5.408.1.1 through 5.408.1.3.	<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"/>

<p>5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.</p>		
<p>5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the project shall meet the requirements of the following standards.</p>		
<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 Tables 5.504.4.1 and 5.504.4.2.</p>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3 unless more stringent local limits apply.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.3.1 Aerosol paints and coatings. 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 type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the standards listed in Section 5.504.4.4.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.5 Composite wood products. 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.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following standards listed in Section 5.504.5.3.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following standards listed in Section 5.504.4.6.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.504.5.3 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.</p>	<input type="checkbox"/>	<input type="checkbox"/>

<p>5.508.2.2.2 Access valve. Only Schrader access valves with a brass or steel body are permitted for use.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.2.2.1 Valves caps. For system with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit over the stem are required for valves designed to have seal caps.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.3 Refrigerated service cases. 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>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.4 Refrigerated receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.5. Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.5.3 Allowable pressure change. 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>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.6.2 Second vacuum. Pull second system vacuum to a minimum of 500 microns and hold for 30 minutes.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p>5.508.2.6.3 Third vacuum. 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>	<input type="checkbox"/>	<input type="checkbox"/>

CALGREEN SIGNATURE DECLARATIONS

Project Name: _____
Project Address: _____
Project Description: _____

SECTION 1 – DESIGN VERIFICATION

Complete all lines of Section 1 – “Design Verification” and submit the completed checklist (Columns 1 and 2) with the plans and building permit application to the Building Department.

The owner and design professional responsible for compliance with CalGreen Standards have revised the plans and certify that the items checked above are hereby incorporated into the project plans and will be implemented into the project in accordance with the requirements set forth in the 2016 California Green Building Standards Code as adopted by the County of Napa.

Owner's Signature	Date
Owner's Name (Please Print)	
Design Professional's Signature	Date
Design Professional's Name (Please Print)	
Signature of License Professional responsible for CalGreen compliance	Date
Name of License Professional responsible for CalGreen compliance (Please Print)	Phone
Email Address for License Professional responsible for CalGreen compliance	

SECTION 2 – IMPLEMENTATION VERIFICATION

Complete, sign and submit the completed checklist, including column 3, together with all original signatures on Section 2 to the Building Department prior to Building Department final inspection.

I have inspected the work and have received sufficient documentation to verify and certify that the project identified above was constructed in accordance with this Green Building Checklist and in accordance with the requirements of the 2016 California Green Building Standards Code as adopted by the County of Napa.

Signature of License Professional responsible for CalGreen compliance	Date
Name of License Professional responsible for CalGreen compliance (Please Print)	Phone
Email Address for License Professional responsible for CalGreen compliance	