

2022 CALGreen CHECKLIST - NONRESIDENTIAL - ADDITIONS & ALTERATIONS



City of
SANTA ROSA
Planning & Economic
Development - Building Division
PAGE 1 of 15
EFFECTIVE: 01 JANUARY 2023

FREE ACCESS TO CALIFORNIA CODES: <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>

Applies to building permit applications received on or after January 1, 2023, for additions and alterations (including tenant improvements) to nonresidential buildings that meet the following criteria:

- The floor area for the addition (if any) exceeds 1,000 square feet; OR
- The permit valuation for the alteration (if any) exceeds \$200,000.

The provisions of this checklist only apply to the portions of the building being added to or altered. For new nonresidential buildings, new shell buildings, and initial tenant improvements to phased shell building construction, see separate checklist (CALGreen **303.1**). Repairs, trade permits, existing structures not being altered, and historic structures are not subject to CALGreen requirements.

PROJECT ADDRESS: _____

PROJECT NAME: _____

PROJECT DESCRIPTION: _____

BUILDING PERMIT NUMBER: _____

INSTRUCTIONS:

The Owner (or the Owner's agent) shall employ a *qualified CALGreen Inspector, listed by the City of Santa Rosa Building Division, to complete this checklist via the following steps:

1. The CALGreen Inspector, in collaboration with the owner and the design professional, shall complete Column 2 of this checklist. Either "required" or "not required" is to be selected for each feature/measure. If "required" is selected, a description and reference to the plan sheet where the item is specified should be provided. If "not required" is selected, a description of why the feature/measure does not apply shall be provided. **Sections not separated by horizontal lines are all related to the relative checkboxes in that non-separated box.** See CALGreen Chapter 4 and Appendix A4 for complete descriptions of features and measures listed below. A specific number of Tier 1 electives is required for each general Tier 1 Elective Section. See CALGreen Section A4.601 for Tier 1 scoping.
2. When Column 2 is complete, the Owner, Design Professional, and CALGreen Inspector are to be identified on, sign, and date the CALGreen Building Acknowledgements Section 1 (Design Verification) at the end of this checklist. The completed checklist is then to be submitted to the City of Santa Rosa Building Division as part of the building permit application.
3. Building Division plan review staff will provide a fourth review of the plans and Column 2 (first three by Owner, Design Professional, and CALGreen Inspector as stated above). When approvable, the approved checklist will be included as part of the approved job set that is to be kept on the construction site throughout construction.
4. The CALGreen Inspector is to inspect all applicable features/measures listed in Column 2, and mark the verification boxes in Column 3 as each feature/measure is completed.
5. Prior to final inspection by the Building Division, the CALGreen Inspector shall verify that all applicable features/measures have been installed, and sign and date the CALGreen Building Acknowledgments Section 2 (Implementation Verification) found at the end of this checklist.

***NOTE:** The CALGreen Inspector shall not be the design professional or contractor for the project, and shall not have a financial interest in the project for which services are being provided (except for the cost of providing said services.) If you are a qualified CALGreen Inspector, but have not been added to the approved City list, please contact the Building Division via email at building@srcity.org

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
PAGE 2 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
CALGreen <u>DIVISION 5.1</u>: PLANNING AND DESIGN			
Site Development			
5.106.1 Storm water pollution prevention plan (< 1 acre). Additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities by complying with lawfully enacted storm water management and/or erosion control ordinances. See Santa Rosa City Code Chapter 17-12 (5.106.1.1). Implement BMPs (5.106.1.2)	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.106.2 Storm Water Pollution Plan (>1 acre). For projects that disturb one acre or more of land, or disturb less than one acre of land, but are part of a larger common plan of development or sale, comply with Santa Rosa City Code Chapter 17-12, NCRWQCB construction permit and NPDES permit.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.106.4.1.1 Short-term bicycle parking. 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% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.106.4.1.3 Long-term bicycle parking. For additions or alterations with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces, with a minimum of one bicycle parking facility. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.106.4.1.5 Acceptable parking facilities for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street, and shall meet one of the following: <ol style="list-style-type: none"> 1. Covered, lockable enclosures with permanently anchored racks for bicycles 2. Lockable bicycle rooms with permanently anchored racks 3. Lockable, permanently anchored bicycle lockers 	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
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5.106.10 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. Examples of methods to manage surface water include swales, water collection and disposal systems, French drains, water retention gardens, and other measures which keep surface water away from buildings and aid in groundwater recharge.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Innovative Concepts (5.1)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen <u>DIVISION 5.2:</u> ENERGY EFFICIENCY			
Performance Requirements			
5.201.1 Scope. Building meets or exceeds the requirements of the 2019 California Building Energy Code. (Tier 1 not adopted locally.)	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen <u>DIVISION 5.3:</u> WATER EFFICIENCY AND CONSERVATION			
Indoor Water Use			
5.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: <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. 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 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/hr. 	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.303.1.2 Excess consumption. A separate submeter or metering device shall be installed for any building within a project or space within a building that is projected to consume more than 1,000 gal/day.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.303.3 Water conserving plumbing fixtures and fittings. New (or replacement) plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:</p> <p>5.303.1 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 US EPA WaterSense Specification for Tank-Type Toilets. Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.</p> <p>5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.125 gallons per flush for wall-mounted, or 0.5 gallons per flush for floor mounted.</p> <p>5.303.3.3 Showerheads.</p> <p>5.303.3.3.1 Single showerheads. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.</p> <p>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 1.8 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. Note: A hand-held shower shall be considered a showerhead.</p> <p>5.303.4 Faucets and Fountains.</p> <p>5.303.4.1 Nonresidential lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.</p> <p>5.303.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.</p> <p>5.303.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].</p> <p>5.303.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.</p> <p>5.303.4.5 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]. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.</p> <p>5.303.4.6 Pre-rinse spray valve. When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1(h)(4) Table H-2, Section 1605.3(h)(4)(A), and Section 1607(d)(7), and shall be equipped with an integral automatic shutoff,</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<p>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</p>			

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5.303.4 Food Waste Disposers. Not allowed (See Wastewater discharge permit)			
5.303.6 Standards for plumbing fixtures and fitting. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in CALGreen Chapter 6.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Outdoor Water Use			
5.304.1 Outdoor potable water use in landscape areas. 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. (See Santa Rosa City Code Chapter 14.30 (Water Efficient Landscape), California Code of Regulations (CCR) Title 23, Division 2, Chapter 2.7, and the requirements below.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Innovative Concepts (5.3)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen DIVISION 5.4: MATERIAL CONSERVATION AND RESOURCE EFFICIENCY			
Water Resistance and Moisture Management			
5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.407.2.1 Sprinklers. Prevent irrigation system spray on structures.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
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 feet around and perpendicular to such openings, plus at least one of the following: 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth. 3. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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5.407.2.2.2 Flashing. Install flashings (at exterior entries and/or openings subject to foot traffic or wind-driven rain) integrated with a drainage plane.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
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 Section 5.408.1.1 (Construction waste management plan), 5.408.1.2 (Waste management company), or 5.408.1.3 (Waste stream reduction alternative); or meet a local construction and demolition waste management ordinance, whichever is more stringent. Documentation is required per CALGreen Section 5.408.1.4 . Exception to 5.408.1: Excavated soil and land-clearing debris - See 5.408.3 for additional requirements.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.408.2 Universal waste. Additions and alteration to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballas and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction document. Note: Refer to the Universal Waste Rule link at: https://dtsc.ca.gov/universalwaste/	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.408.3 Excavated soil and land clearing debris. 100% of trees, stumps, rocks, associated vegetation, and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed. Exception: Vegetation or soil contaminated by disease or pest infestation.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Building Maintenance and Operation			
5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals. 5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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Note: 5.410.2 and 5.410.4 are for new buildings and initial shell build-outs - See separate handout.			
Innovative Concepts and Local Environmental Conditions (5.4)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
CALGreen <u>DIVISION 5.5</u>: ENVIRONMENTAL QUALITY			
Fireplaces			
5.503.1 Fireplaces. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves shall comply with US EPA New Source Performance Standards emission limits. (5.503.1.1)	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Pollutant Control			
5.504.1 Temporary ventilation. 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.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, or during storage on the construction site and until final startup of the heating, cooling and ventilation 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, water and debris which may enter the system.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the project shall meet the requirements of the following standards: 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 . 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 California Code of Regulations, Title 17, commencing with Section 94507.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3.</p> <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 94522 (c)(2) and (d)(2) et seq) and BAAQUD Regulation 8 Rule 49.</p> <p>5.504.4.3.2 Verification. Verification of compliance with this section shall be provided to the enforcing agency.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<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"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 504.4.1.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<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. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3):</p> <ol style="list-style-type: none"> 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting Composite Wood Products regulations. 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards. 5. Other methods acceptable to the enforcing agency. 	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

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<p>5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material Documentation required per CALGreen Section 5.504.4.6.1.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.7 Thermal Insulation. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material Documentation required per CALGreen Section 5.504.4.7.1.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.4.8 Acoustical ceilings and wall panels. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material Documentation required per CALGreen Section 5.504.4.8.1.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<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 13. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating. (5.504.5.3.1) Exception: Existing Mechanical Equipment.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.504.7 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. Also prohibit smoking within buildings (as already prohibited by other laws or regulations, or as enforced by ordinances, regulations, or policies of the City or County.) When ordinances, regulations or policies are not in place, post signage to inform building occupants of prohibitions.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
PAGE 10 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
Interior Moisture Control			
<p>5.505.1 Indoor moisture control. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see CALGreen Section 5.407.2.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
Interior Air Quality			
<p>5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements for Ventilation) of the latest edition of the California Energy Code, CCR, Title 24, Part 6 and Chapter 4 of CCR, Title 8.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
<p>5.506.2 Carbon dioxide (CO2) monitoring. For buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, CCR, Title 24, Part 6, Section 120(c)(4).</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):			
Environmental Comfort			
<p>5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. (Support documentation required prior to permit issuance)</p> <p>Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.</p> <p>5.507.4.1 Exterior noise transmission, Prescriptive Method. Wall and roof-ceiling assemblies exposed to the noise source (making up the building envelope) shall have exterior wall and roof-ceiling assemblies meeting a composite STC rating of at least 50 or a composite OITC rating of no less than 40 with exterior windows of a minimum STC of 40 or OITC of 30 in the locations described in Items 1 (airports) and 2 (freeway, railroad, industrial source, etc.)</p> <p>5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq}-1Hr during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC or rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).</p> <p>5.507.4.2 Exterior noise transmission, Performance Method. For buildings located as defined in Sections 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies making up the building envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L_{eq}-1Hr) of 50 dBA in occupied areas during any hour of operation.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
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<p>5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized, as appropriate, to mitigate sound migration to the interior.</p> <p>5.507.4.2.2 Documentation of compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.</p>			
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.507.4.3 Interior noise transmission, Performance Method. Wall and floor ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Outdoor Air Quality			
<p>5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration, and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.</p> <p>5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC and refrigeration equipment that does not contain CFCs.</p> <p>5.508.1.2 Halons. Install fire suppression equipment that does not contain Halons.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
<p>5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.</p> <p>Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.</p> <p>5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than ¼", flared tubing connections, and short radius elbows shall not be used in refrigerant systems except as noted in Sections 5.508.2.1.1 through 5.508.2.1.4.</p> <p>5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.</p> <p>5.508.2.1.2 Copper pipe. Copper tubing with an OD less than ¼" may be used in systems with a refrigerant charge of 5 pounds or less.</p> <p>5.508.2.1.2.1 Anchorage. ¼" OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.</p>	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
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<p>5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines, and oil.</p> <p>Exception: Single-flared tubing connections may be used with a multi-ring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.</p> <p>5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit the use of long radius elbows.</p> <p>5.508.2.2 Valves. Valves and fittings shall comply with the California Mechanical Code and Sections 5.508.2.2.1 through 5.508.2.2.2.1.</p> <p>5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.</p> <p>5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer, or other devices shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.</p> <p>5.508.2.2.2 Access Valves. Only Schrader access valves with a brass or steel body are permitted for use.</p> <p>5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.</p> <p>5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. Chain tethers to fit over the stem are required for valves designed to have seal caps (5.508.2.2.2.1).</p> <p>Exception to 5.508.2.2.2.1: Valves with seal caps that are not removed from the valve during stem operation.</p> <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> <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> <p>5.508.2.4 Refrigerant 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> <p>5.508.2.5 Pressure testing. The system shall be pressure tested during installation, prior to evacuation and charging.</p> <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> <p>5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.</p> <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> <p>5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.</p> <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> <p>5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns, and hold for 30 minutes.</p> <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>			

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<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Innovative Concepts (5.5)			
Proposed Innovative Concept 1:	<input type="checkbox"/> RQ'D		<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
INSTALLER AND CALGreen INSPECTOR QUALIFICATIONS			
Qualifications			
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
702.2 The CALGreen Inspector is listed by the City of Santa Rosa as an approved CALGreen Inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			
Verifications			
703.1 Verification of compliance with this code shall include, but not be limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	<input type="checkbox"/> RQ'D	<input type="checkbox"/> N/A	<input type="checkbox"/>
<i>Sheet number and description of proposed measure(s) or explanation of why it is not applicable (N/A):</i>			

DEFINITIONS:

BROWNFIELD SITE: REAL PROPERTY, THE EXPANSION, REDEVELOPMENT OR REUSE OF WHICH MAY BE COMPLICATED BY THE PRESENCE (OR POTENTIAL PRESENCE) OF A HAZARDOUS SUBSTANCE, POLLUTANT, OR CONTAMINANT WITH CERTAIN LEGAL EXCLUSIONS AND ADDITIONS.

ELECTRIC VEHICLE (EV): AN AUTOMOTIVE-TYPE VEHICLE FOR ON-ROAD USE, SUCH AS PASSENGER AUTOMOBILES, BUSES, TRUCKS, VANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTOR THAT DRAWS CURRENT FROM A RECHARGEABLE STORAGE BATTERY, FUEL CELL, PHOTOVOLTAIC ARRAY, OR OTHER SOURCE OF ELECTRIC CURRENT. **PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV)** ARE CONSIDERED ELECTRIC VEHICLES. FOR PURPOSES OF THE CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS, TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED.

ELECTRIC VEHICLE (EV) CAPABLE SPACE: A VEHICLE SPACE WITH ELECTRICAL PANEL SPACE AND LOAD CAPACITY TO SUPPORT A BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGING.

ELECTRIC VEHICLE (EV) READY SPACE: A VEHICLE SPACE WHICH IS PROVIDED WITH A BRANCH CIRCUIT (ANY NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED) TO ACCOMMODATE EV CHARGING, TERMINATING IN A RECEPTACLE OR A CHARGER.

ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) DEFINITION: A SPACE INTENDED FOR FUTURE INSTALLATION OF EV CHARGING EQUIPMENT AND CHARGING OF ELECTRIC VEHICLES.

ELECTRIC VEHICLE CHARGING STATION (EVCS): ONE OR MORE ELECTRIC VEHICLE CHARGING SPACES SERVED BY ELECTRIC VEHICLE CHARGER(S), OR OTHER CHARGING EQUIPMENT ALLOWING CHARGING OF ELECTRIC VEHICLES. ELECTRIC VEHICLE CHARGING STATIONS ARE NOT CONSIDERED PARKING SPACES.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE): THE CONDUCTORS, INCLUDING THE UNGROUNDED, GROUNDED, AND EQUIPMENT GROUNDING CONDUCTORS, THE ELECTRIC VEHICLE CONNECTORS, ATTACHMENT PLUGS, AND ALL OTHER FITTINGS, DEVICES, POWER OUTLETS, OR APPARATUS INSTALLED SPECIFICALLY FOR THE PURPOSE OF TRANSFERRING ENERGY BETWEEN THE PREMISES WIRING AND THE ELECTRIC VEHICLE.

GREYFIELD SITE: ANY SITE PREVIOUSLY DEVELOPED WITH AT LEAST 50% OF THE SURFACE AREA COVERED WITH IMPERVIOUS MATERIAL.

INFILL SITE: A SITE IN AN URBANIZED AREA THAT MEETS EITHER OF THE FOLLOWING CRITERIA:

1. THE SITE IS IMMEDIATELY ADJACENT TO PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, OR AT LEAST 75% OF THE PERIMETER OF THE SITE ADJOINS PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, AND THE REMAINING 25% OF THE SITE ADJOINS PARCELS THAT HAVE PREVIOUSLY BEEN DEVELOPED FOR QUALIFIED URBAN USES.
2. NO PARCEL WITHIN THE SITE HAS BEEN CREATED WITHIN THE PAST 10 YEARS UNLESS THE PARCEL WAS CREATED AS A RESULT OF THE PLAN OF A REDEVELOPMENT AGENCY

CALGreen BUILDING ACKNOWLEDGMENTS

PROJECT ADDRESS: _____

PROJECT DESCRIPTION: _____

SECTION 1 - DESIGN VERIFICATION

INSTRUCTIONS:

Prior to building permit application, 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 City of Santa Rosa Building Division.

The signatures below certify that the owner, design professional, and the CALGreen inspector have reviewed the plans and Columns 1 and 2 of this checklist, 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 2022 California Green Building Standards Code.

Owner's Signature

Date

Owner's Name *(Please Print)*

Design Professional's Signature

Date

Design Professional's Name *(Please Print)*

CALGreen Inspector's Signature

Date

CALGreen Inspector's Name *(Please Print)*

CALGreen Inspector's Phone Number

CALGreen E-mail Address

ICC Certification Number

SECTION 2 - IMPLEMENTATION VERIFICATION

Complete, sign, and submit the completed checklist, including Column 3, together with all original signatures in this Section 2 – "Implementation Verification" to the Building Department prior to Building Department final inspection.

The owner, design professional, and the CALGreen inspector have reviewed 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 2022 California Green Building Standards Code.

CALGreen Inspector's Signature

Date

CALGreen Inspector's Name *(Please Print)*

CALGreen Inspector's Phone Number
(If Different Than Above)

CALGreen E-mail Address *(If Different Than Above)*

ICC Certification Number
(If Different Than Above)