



NONRESIDENTIAL 2013 CALGreen+Tier 1 Checklist

(Revised per CALGreen Supplement and City of Santa Rosa Requirements - Based on CALGreen + Tier 1)

Applies to building permit applications received on or after January 1, 2014, for newly constructed nonresidential buildings

Project Address: _____

Project Name: _____

Project Description: _____

Building Permit #: _____

Instructions:

1. The Owner or the Owner's agent shall employ a qualified Green Building Special Inspector, listed by the City of Santa Rosa Building Division, to perform Green Building Special Inspector services and to verify and assure the Owner and the Building Division that all required work described herein is properly planned and implemented in the project.
2. The Green Building Special 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.
3. The Green Building Special Inspector, in collaboration with the owner and the design professional shall initially complete **Columns 1 and 2** of this checklist, sign and date the **CALGreen Building Acknowledgements** section at the end of this checklist and have the checklist printed on or attached to the approved plans for the project.
4. Prior to final inspection by the Building Division, CALGreen Building Special Inspector, except where verification by City is noted, shall complete **Column 3** and provide verification of completion prior to final inspection by City staff.

Feature or Measure	Project Requirements		Verification
<u>Column 1</u>	<u>Column 2</u> <i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i>		<u>Column 3</u> <i>Complete after implementation and prior to final inspection approval</i>
<i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code and Santa Rosa City Code Chapter 18 for complete descriptions of features or measures listed here.</i>	Mandatory & Tier 1 Prerequisites	Tier 1 electives <i>Applicant selects required elective measures</i>	Verification by a 3rd party CALGreen Special Inspector or by City staff as noted
PLANNING AND DESIGN	<i>All checked items are required for the project</i>	<i>Select at least one (1) elective measure from A5.1</i>	<i>Select all measures verified in the completed project</i>
SITE SELECTION			
A5.103.1 Community connectivity. Locate project on a previously developed site within a 1/2 mile radius of at least ten basic services, listed in Section A5.103.1. : (Support documentation required at application submittal)		<input type="checkbox"/>	Special Inspector <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>A5.106.2.2 Storm water runoff quality. Use post construction treatment control best management practices (BMPs) to mitigate (infiltrate, filter, or treat) storm water runoff from the 85th percentile 24-hour runoff event (for volume-based BMPs) or the runoff produced by a rain event equal to two times the 85th percentile hourly intensity (for flow-based BMPs).</p>		<input type="checkbox"/>	City Plan Check staff <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		
<p>A5.106.3 Low impact development (LID). Reduce peak runoff in compliance with Section 5.106.3.1. Employ <u>at least two</u> of the following methods or other best management practices to allow rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses. LID strategies include, but are not limited to those listed in A5.106.4.</p> <ol style="list-style-type: none"> 1. Bioretention (rain gardens); 2. Cisterns and rain barrels; 3. Green roofs; 4. Roof leader disconnection; 5. Permeable and porous paving; 6. Vegetative swales and filter strips & tree preservation; 7. Volume retention suitable for previously developed sites. 		<input type="checkbox"/> Min. of 2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Special Inspector <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		
<p>5.106.4 Bicycle parking and changing rooms (or comply with local ordinance).</p> <p>5.106.4.1 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 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.</p> <p>5.106.4.2 Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of motorized vehicle parking capacity, with a minimum of one space.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		Special Inspector <input type="checkbox"/> <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		
<p>A5.106.4.3 Changing rooms. For buildings with over 10 tenant-occupants, provide changing/shower facilities in accordance with Table 5.106.4.3, or document arrangements with nearby changing/shower facilities.</p>		<input type="checkbox"/>	Special Inspector <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		
<p>A5.106.5.1.1 Designated parking for fuel-efficient vehicles. Provide 10% of designated parking of total designated parking spaces for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as shown in Table A5.106.5.1.1. (Tier 1) Note: Supersedes 5.106.5.2</p> <p>5.106.5.2.1 Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle:</p> <p style="text-align: center;">CLEAN AIR/ VANPOOL/EV</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		Special Inspector <input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:</p> <p>1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.</p> <p>2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.</p>	☒		☐
<p>A5.304.4.1 Potable water reduction. Provide water efficient landscape irrigation design that reduces by the use of potable water to a quantity that does not exceed 60 percent of ETo times the landscape area. (Tier 1)</p> <p>Methods used to accomplish the requirements of this section shall include, but not be limited to, the items listed in A5.304.4.</p> <p>A5.304.4.3 Verification of compliance. A calculation demonstrating the applicable potable water use reduction required by this section shall be provided.</p>	☒		☐
<p>A5.304.5 Potable water elimination. Provide a water efficient landscape irrigation design that eliminates the use of potable water beyond the initial requirements for plant installation and establishment.</p>		☐	☐
<p>A5.304.6 Restoration of areas disturbed by construction. Restore all areas disturbed during construction by planting with local native and/or non-invasive vegetation.</p>		☐	☐
<p>A5.104.7 Previously developed sites. On previously developed or graded sites restore or protect at least 50percent of the site area with native and/or non-invasive vegetation.</p>		☐	☐
<p>A5.304.8 Graywater irrigation system. Install graywater collection system for onsite subsurface irrigation using graywater. See California Plumbing Code.</p>		☐	☐
<p>MATERIAL CONSERVATION AND RESOURCE EFFICIENCY</p>	<p><i>All checked items are required for the project</i></p>	<p><i>Select at least one (1) elective measure from A5.4</i></p>	<p><i>Select all measures verified in the completed project</i></p>
<p>EFFICIENT FRAMING SYSTEMS</p>			
<p>A5.404.1 Wood framing. Employ advanced wood framing techniques, or OVE, as permitted by the enforcing agency. See A5.404.1.2 for advanced framing techniques.</p> <p>A5.404.1.1 Structural or fire-resistance integrity. The OVE selected shall not conflict with structural framing methods or fire-rated assemblies required by the California Building code.</p>		☐	<p><i>Special Inspector</i></p> <p>☐</p>
<p>MATERIAL SOURCES</p>			
<p>A5.405.1 Regional materials. Select building materials or products for permanent installation on the project that have been harvested or manufactured in California or within 500 miles of the project site, meeting the criteria listed in A5.405.1.</p>		☐	<p><i>Special Inspector</i></p> <p>☐</p>
<p>A5.405.2 Bio-based materials. Select bio-based building materials and products made from solid wood, engineered wood, bamboo, wool, cotton, cork, straw, natural fibers, products made from crops (soy-based, corn-based) and other bio-based materials with a least 50% bio-based content.</p>		☐	<p><i>Special Inspector</i></p> <p>☐</p>

Feature or Measure	Project Requirements		Verification
<p>A5.405.2.1 Certified wood: Certified wood is an important component of green building strategies and the California Building Standards Commission will continue to develop a standard through the next code cycle.</p> <p>A5.405.2.2 Rapidly renewable materials: Use materials made from plants harvested within a ten-year cycle for at least 2.5% of the total materials value, based on estimated cost.</p>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<p>A5.405.3 Reused materials. Use salvaged, refurbished, refinished, or reused materials for at least 5% of the total value, based on estimated cost of materials on the project.</p>		<input type="checkbox"/>	<p><i>Special Inspector</i></p> <input type="checkbox"/>
<p>A5.405.4 Recycled content. Use materials, equivalent in performance to virgin materials, with postconsumer or pre-consumer recycled content value (RCV) for not less than 10% of the total value, based on estimated cost of materials on the project. Provide documentation as the respective values. (Tier 1) See Sections A5.405.4.1 through A5.405.4.5.</p> <p>Note: See local building department for alternative approval.</p>	<input checked="" type="checkbox"/>		<p><i>Special Inspector</i></p> <input type="checkbox"/>
<p>A5.405.5 Cement and concrete. Use cement and concrete made with recycled products and complying with the following sections:</p> <p>A5.405.5.1 Cement. Meet the following standards for cement:</p> <ol style="list-style-type: none"> Portland cement shall meet ASTM C 150. Blended Cement shall meet ASTM C 595 or ASTM C 1157. Other hydraulic cements shall meet ASTM C 1157. <p>A5.405.5.2 Concrete. Unless otherwise directed by the Engineer of Record, use concrete manufactured with cementitious materials in accordance with Sections A5.405.5.2.1 and A5.405.5.2.1.1, as approved by the enforcing agency.</p> <p>A5.405.5.2.1 Supplementary cementitious materials (SCMs). Use concrete made with one or more of the supplementary cementitious materials (SCMs) conforming with the standards listed in Section A5.405.5.2.1</p> <p>A5.405.5.2.1.1 Mix design equation. Use any combination of one or more (SCMs), satisfying Equation A5.4-14.</p> <p>Exception: Minimums in mix designs approved by the Engineer of Record may be lower where high early strength is needed for concrete products or to meet an accelerated project schedule.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><i>Special Inspector</i></p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<p>A5.405.5.3 Additional means of compliance. Any of the measures in sections A5.405.5.3.1 through A5.405.3.3 may be employed for the production of cement or concrete, depending on their availability and suitability, in conjunction with A5.405.5.2.</p>		<input type="checkbox"/>	<p><i>Special Inspector</i></p> <input type="checkbox"/>
ENHANCED DURABILITY AND REDUCED MAINTENANCE			
<p>A5.406.1 Choice of materials. Compared to other products in a given product category, choose materials proven to be characterized by one or more of the following:</p> <p>A5.406.1.1 Service life. Select materials for longevity and minimal deterioration under conditions of use.</p> <p>A5.406.1.2 Reduced maintenance. Select materials that require little, if any, finishing.</p> <p>A5.406.1.3 Recyclability. Select materials that can be re-used or recycled at the end of their service life.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p><i>Special Inspector</i></p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
installed in accordance with the requirements of the latest edition of the California Energy Code, CCR, Title 24, Part 6, Section 120.1(c)4.			
<i>Description of proposed measures:</i>	<i>Sheet: Detail:</i>		
ENVIRONMENTAL COMFORT			
<p>A5.507.1 Lighting and thermal comfort controls. Provide controls in the workplace as described in Sections A5.507.1.1 and A5.507.1.2.</p> <p>A5.507.1.1 Single-occupant spaces. Provide individual controls that meet energy use requirements in the 2010 California Energy Code in accordance with Sections A5.507.1.1.1 and A5.507.1.1.2.</p> <p>A5.507.1.1.1 Lighting. Provide individual task lighting and/or daylighting controls for at least 90 percent of the building occupants.</p> <p>A5.507.1.1.2 Thermal comfort. Provide individual thermal comfort controls for at least 50 percent of the building occupants as listed by 1 & 2 in A5.507.1.1.2.</p> <p>A5.507.1.2 Multi-occupant spaces. Provide lighting and thermal comfort system controls for all shared multi-occupant spaces such as classrooms and conference rooms.</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"/>
<i>Description of proposed measures:</i>	<i>Sheet: Detail:</i>		
<p>A5.507.2 Daylight. Provide daylit spaces as required for toplighting and sidelighting in the latest edition of the California Energy Code. In constructing a design, consider Items listed 1 through 4 in A5.507.2.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p>A5.507.3 Views. Achieve direct line of sight to the outdoor environment via vision glazing between 2'6" and 7'6" above finish floor for building occupants in 90 percent of all regularly occupied areas as demonstrated by plan view and section cut diagrams.</p> <p>A5.507.3.1 Interior office spaces. Entire areas of interior office spaces may be included in the calculation if at least 75percent of each area has direct line of sight to perimeter vision glazing.</p> <p>A5.507.3.2 Multi-occupant spaces. Include in the calculation the square footage with direct line of sight to perimeter vision glazing.</p> <p>Exceptions to Section A5.507.2 and A5.507.3. Copy/printing rooms, storage areas, mechanical spaces, restrooms, auditoria and other intermittently or infrequently occupied spaces or spaces where daylight would interfere with use of the space.</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"/>
<i>Description of proposed measures:</i>	<i>Sheet: Detail:</i>		
<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 E 1332, 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 floor-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</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements	Verification
<p>locations described in Items 1 (military 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, <u>Performance Method</u>. 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> <p>5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the project 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> <p>5.507.4.3 Interior noise transmission, <u>Performance Method</u>. Wall and floor ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.</p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
OUTDOOR AIR QUALITY		
<p>5.508.1 Ozone depletion and global warming 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 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.¹</p> <p>A5.508.1.3 Hydrochlorofluorocarbons (HCFCs). Install HVAC and refrigeration equipment that does not contain HCFCs.</p> <p>A5.508.1.4 Hydrofluorocarbons (HFCs). Install HVAC complying with either of the following:</p> <ol style="list-style-type: none"> 1. Install HVAC, refrigeration and fire suppression equipment that do not contain HFCs or that do not contain HFCs with a global warming potential greater than 150. 2. Install HVAC and refrigeration equipment that limit the use of HFC refrigerant through the use of a secondary heat transfer fluid with a global warming potential no greater than 1. 	<p>As applicable</p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
<p>Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provision of section 5.508.2 when installed in retail food stores of 8,000 sq. ft. or more of conditioned 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) 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 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>Note: See all requirements for refrigerant piping, valves, refrigerated service cases, refrigerant receivers, pressure testing and system evacuation contained</p>	<p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p>

Feature or Measure	Project Requirements		Verification
under section 5.508.2			
ADDITIONAL ELECTIVE MEASURE			
A5.601.2.4.5 Additional elective measure. Pursuant to Tier 1 requirements, select one additional Tier 1 elective measure from any division.	<input checked="" type="checkbox"/>		<i>Special Inspector</i>

INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS	<i>All checked items are required for the project</i>		<i>Select all measures verified in the completed project</i>
Qualifications			
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input checked="" type="checkbox"/>		<i>Special Inspector</i> <input type="checkbox"/>
702.2 The green building special inspector for this project is listed by the City of <u>Santa Rosa</u> as an approved green building special inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.	<input checked="" type="checkbox"/>		City Plan Check Staff <input type="checkbox"/>

Green Building Acknowledgments

Project Address: _____

Project Description: _____

Project Bldg Permit # _____

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 Division.

The owner, design professional and green building special 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 2013 California Green Building Standards Code as amended by Chapter 18 of the Santa Rosa City Code.

Owner's Signature

Date

Owner Name (Please Print)

Design Professional's Signature

Date

Design Professional's Name (Please Print)

Signature of Listed Green Building Special Inspector

Date

Listed Green Building Special Inspector's Name (Please Print)

Phone

Green Building Special Inspector's E-mail Address

Section 2 - Implementation Verification

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

I have inspected the work 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 set forth in the 2013 California Green Building Standards Code as amended by Chapter 18 of the Santa Rosa Code.

Listed City of Santa Rosa Approved CALGreen Special Inspector Signature

Date

Green Building Special Inspector's Name (Please Print)

Phone (if different than above)

Green Building Special Inspector's E-mail Address (if different than above)