



NONRESIDENTIAL 2010 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 July 1, 2012, for newly constructed nonresidential buildings

Addition and alteration projects should use the Nonresidential Addition and Alteration CALGreen checklist. Repairs, existing structures and historic structures are not subject to the requirements of CALGreen

Project Address: _____

Project Name: _____

Project Description: _____

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 2010 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>A5.103.2 Brownfield or greyfield site redevelopment or infill area development. Select for development a brownfield in accordance with Section A5.103.2.1 or on a greyfield or infill site as defined in Section A5.102.</p> <p>A5.103.3.1 Brownfield redevelopment. Develop a site documented as contaminated and fully remediated or on a site defined as a brownfield.</p>		<input type="checkbox"/> <input type="checkbox"/>	City Plan Check staff <input type="checkbox"/> <input type="checkbox"/>
SITE PRESERVATION			
<p>A5.104.1.1 Local zoning requirement in place. Exceed the zoning's open space requirement for vegetated open space on the site by 25 percent.</p> <p>A5.104.1.2 No local zoning requirement in place. Provide vegetated open space area adjacent to the building equal to the building footprint area.</p> <p>A5.104.1.3 No open space required in zoning ordinance. Provide vegetated open space equal to 20 percent of the total project site area.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
DECONSTRUCTION AND REUSE OF EXISTING STRUCTURES			
<p>A5.105.1.1 Existing building structure. Maintain at least 75percent of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing) based on surface area. (Support documentation required at application submittal)</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Window assemblies and non-structural roofing material. 2. Hazardous materials that are remediated as a part of the project. 3. A project with an addition of more than 2 times the square footage of the existing building. <p>A5.105.1.2 Existing non-structural elements. Reuse existing interior non-structural elements (interior walls, doors, floor coverings and ceiling systems) in at least 50 percent of the area of the completed building (including additions).</p> <p>Exception: A project with an addition of more than 2 times the square footage of the existing building.</p> <p>A5.105.1.3 Salvage. Salvage additional items in good condition such as light fixtures, plumbing fixtures, and doors for reuse on this project in an onsite storage area or for salvage in dedicated collection bins. Document the weight or number of the items salvaged.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
SITE DEVELOPMENT			
<p>5.106.1 Storm water pollution prevention plan. Newly constructed projects which disturb less than one acre of land 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.</p>	<input checked="" type="checkbox"/>		City Plan Check staff <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<p style="text-align: right;"><i>Sheet: Detail:</i></p>		
<p>A5.106.2 Storm water design. Design storm water runoff rate and quantity in conformance with Section A5.106.3.1 and storm water runoff quality by Section A5.106.3.2, or by local requirements, whichever are stricter.</p> <p>A5.106.2.1 Storm water runoff rate and quantity. Implement a storm water management plan resulting in no net increase in rate and quantity of storm water runoff from existing to developed conditions.</p> <p>Exception: If the site is already greater than 50 percent impervious, implement a storm water management plan resulting in a 25 percent decrease in rate and quantity.</p>		<input type="checkbox"/> <input type="checkbox"/>	City Plan Check staff <input type="checkbox"/> <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"/>	<p style="color: green;">Special Inspector</p> <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"/>		<p style="color: green;">Special Inspector</p> <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"/>	<p style="color: green;">Special Inspector</p> <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		
<p>A5.106.5.1 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"/>		<p style="color: green;">Special Inspector</p> <input type="checkbox"/> <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<i>Sheet: Detail:</i>		

Feature or Measure	Project Requirements		Verification
A5.106.5.3.1 Electric vehicle supply wiring. For each space required in Table A5.106.5.3.1, provide panel capacity and dedicated conduit for one 208/240 V 40 amp circuit terminating within 5 ft. of the midline of each parking space.		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>
A5.106.6 Parking capacity. Design parking capacity to meet but not exceed minimum local zoning requirements. : (Support documentation required at application submittal) A5.106.6.1 Reduce parking capacity. With the approval of the enforcement authority, employ strategies to reduce on site parking area by <ol style="list-style-type: none"> 1. Use of on street parking or compact spaces, illustrated on the site plan, or 2. Implementation and documentation of programs that encourage occupants to carpool, ride share, or use alternate transportation. 		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>
A5.106.7 Exterior walls. Meet requirements in the current edition of the California Energy Code and with either A5.106.7.1 or A5.106.7.2 select one of the following for wall surfaces: A5.106.7.1 Fenestration. Provide vegetative or man-made shading devices for all fenestration on east-, south- and west-facing walls. A5.106.7.1.1 East and west walls. Shading devices shall have 30% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less. A5.106.7.1.2 South walls. Shading devices shall have 60% coverage to a height of 20 feet or to the top of the exterior wall, whichever is less. A5.106.7.2 Opaque wall areas. Use wall surfacing with SRI 2S (aged), for 75% of opaque wall areas.		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.106.8 Light pollution reduction. Outdoor lighting systems shall be designed and installed to comply with the following: <ol style="list-style-type: none"> 1. The minimum requirements of the 2010 California Energy Code for Lighting Zone 2 as defined in Chapter 10 of the California Administrative Code; and 2. Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-106-07; and 3. Allowable BUG ratings not exceeding those shown in Table 5106.8 Exceptions: <ol style="list-style-type: none"> 1. Luminaires that qualify as exceptions in the California Energy Code. 2. Emergency lighting. 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<i>Description of proposed measures:</i>	<i>Sheet: Detail:</i>		
A5.106.9 Building orientation. Locate and orient the building as follows: <ol style="list-style-type: none"> 1. When site and location permit, orient the long axis of the building east and west, with a maximum allowable deviation of 30 degrees. 2. Protect the building from thermal loss, drafts, and degradation of the building envelope caused by wind and wind-driven materials. 		<input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/>
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 or other measures which keep surface water away from buildings and aid in groundwater recharge.	<input checked="" type="checkbox"/>		<i>Special Inspector</i> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<i>Description of proposed measures:</i>	<i>Sheet: Detail:</i>		
<p>A5.106.11 Heat island effect. Reduce non-roof heat islands, and roof heat islands as follows:</p> <p>A5.106.11.1 Hardscape alternatives. Use <u>one</u> or a combination of strategies 1 through 3 for 50 percent of site hardscape <u>or</u> put 50 percent of parking underground.</p> <ol style="list-style-type: none"> 1. Provide shade (mature within 5 years of occupancy). 2. Use light colored materials with an initial solar reflectance value of at least .30 as determined in accordance with ASTM Standards E1918 or C1549. 3. Use open-grid pavement system or pervious or permeable pavement system. <p>A5.106.11.2 Cool Roof. Use roofing materials having a minimum 3-year aged solar reflectance and thermal emittance complying with Sections A5.106.11.2.1 and A5.106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) equal to or greater than the values shown in Table A5.106.11.2.1 - Tier 1. (Support documentation required at application submittal)</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<p>Special Inspector</p> <input type="checkbox"/> <input type="checkbox"/>
ENERGY EFFICIENCY	<i>All checked items are required for the project</i>	<i>No elective measures required from A5.2</i>	<i>Select all measures verified in the completed project</i>
PERFORMANCE REQUIREMENTS			
<p>A5.203.1 Energy performance. Using an Alternative Calculation Method approved by the California Energy Commission, calculate the annual Time Dependent Valuation (TDV) energy for each nonresidential building’s annual Time Dependent Valuation (TDV) regulated energy use components and compare them to the standard or “budget” building. Exceed the 2010 California Energy Code requirements by 15% (Tier 1)</p>	<input checked="" type="checkbox"/>		<p>City Bldg Inspector <input type="checkbox"/> May require HERS</p>
PRESCRIPTIVE MEASURES			
<p>A5.204.1 ENERGY STAR equipment and appliances. All equipment and appliances provided by the builder shall be ENERGY STAR labeled if ENERGY STAR is applicable to that equipment or appliance.</p>		<input type="checkbox"/>	<p>Special Inspector</p> <input type="checkbox"/>
<p>A5.204.2 Energy monitoring. Provide sub-metering or equivalent combinations of sensor measurements and thermodynamic calculations, if appropriate, to record energy use data for each major energy system in the building. : (Support documentation required at application submittal)</p> <p>A5.201.2.1 Data Storage. The data management\’s system must be capable of electronically storing energy data and creating user reports showing hourly, daily, monthly and annual energy consumption for each major energy system.</p> <p>A5.204.2.2 Data Access. Hourly energy use data shall be accessible through a central data management system and must be available daily.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Special Inspector</p> <input type="checkbox"/> <input type="checkbox"/>
<p>A5.204.3 Demand response. HVAC systems with Direct Digital Control Systems and centralized lighting systems shall include pre-programmed demand response strategies that are automated with either a Demand Response Automation Internet Software Client or dry contact relays. : (Support documentation required at application submittal)</p> <p>A5.204.3.1 HVAC. The pre-programmed demand response strategies should be capable of reducing the peak HVAC demand by cooling temperature set point adjustment.</p> <p>A5.204.3.2 Lighting. The pre-programmed demand response strategies should be capable of reducing the total lighting load by a minimum 30 percent</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Special Inspector</p> <input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>through dimming control or bi-level switching.</p> <p>A5.204.3.3 Software clients. The software clients will be capable of communicating with a DR Automation Server.</p>		<input type="checkbox"/>	<input type="checkbox"/>
RENEWABLE ENERGY			
<p>A5.211.1 On-site renewable energy. Use on-site renewable energy for at least 1 percent of the electrical service overcurrent protection device rating calculated in accordance with the 2010 California Electrical Code, or 1KW, whichever is greater, in addition to the electrical demand required to meet 1 percent of natural gas and propane use calculated in accordance with the 2010 California Plumbing Code. (Support documentation required at application submittal)</p> <p>A5.211.1.1 Documentation. Calculate renewable on-site system to meet the requirements of Section A5.211.1. Factor in net-metering, if offered by local utility, on an annual basis.</p> <p>A5.211.3 Green Power. Participate in the local utility’s renewable energy portfolio program that provides a minimum of 50 percent electrical power from renewable sources. Maintain documentation through utility billings.</p> <p>A5.211.4 Pre-wiring for future solar. Size and install conduit from the building roof or eave to a location within the building identified as suitable for future installation of controls and/or storage batteries.</p> <p>A5.211.4.1 Grid-connection system without storage. Location within the building shall be of sufficient dimensions to accommodate an inverter and/or other controls as approved by the utility.</p> <p>A5.211.4.2 System for future storage of energy. If battery storage is anticipated, conduit should run to a location within the building that is stable, weather-proof, insulated against very hot and very cold weather, and isolated from occupied spaces.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
ELEVATORS, ESCALATORS, AND OTHER EQUIPMENT			
<p>A5.212.1 Elevators and escalators. In buildings with more than one elevator or two escalators, provide controls to reduce the energy demand of elevators and reduce the speed of escalators as follows. Document systems operation and controls in the project specifications and commissioning plan. (Support documentation required at application submittal)</p> <p>A5.212.1.1 Elevators. Traction elevators shall have a regenerative drive system that feeds electrical power back into the building grid when the elevator is in motions.</p> <p>A5.212.1.1.1 Car lights and fan. A parked elevator shall turn off its car lights and fan automatically until the elevator is called.</p> <p>A5.212.1.2 Escalators. An escalator shall have a VVVF motor drive system that is fully regenerative when the escalator is in motion.</p> <p>A5.212.1.4 Controls. Controls that reduce energy demand shall meet requirements of CCR, Title 8, Chapter 4, Subchapter 6 and shall not interrupt emergency operations for elevators required in CCR, Title 24, Part 2, California Building Code.</p>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
ENERGY EFFICIENT STEEL FRAMING			
<p>A5.213.1 Steel framing. Design steel framing for maximum energy efficiency. Techniques for avoiding thermal bridging in the enveloped shall include exterior rigid insulation, punching large holes in stub web, spacing studs as far as possible and detailed design of intersections of wall openings and building intersections.</p>		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>
<i>Description of proposed measures:</i>	<i>Sheet:</i> <i>Detail:</i>		

Feature or Measure	Project Requirements		Verification
<p>A5.303.3 Appliances and fixtures for commercial application. Appliances and fixtures shall meet the following:</p> <ol style="list-style-type: none"> 1. Clothes washers shall have a maximum Water Factor (WF) that will reduce the use of water by 10% below the California Energy Commissions WF standards. 2. Dishwashers shall meet the following water use standards: Residential: 5.8 gallons per cycle. Commercial: refer to Table A5.303.3. 3. Ice makers shall be air cooled. 4. Food steamers shall be connection-less or boiler-less. 5. The use and installation of water softeners shall be limited or prohibited by local agencies. 6. Combination ovens shall not consume more than 10 gph in the full operations mode. 7. Commercial pre-rinse spray valves manufactured on or before January 1, 2006 shall function at equal to or less than 1.6 gpm at 60 psi and be capable of cleaning 60 plates in 30 seconds per plate, be equipped with an integral automatic shutoff, and operate at static pressure of at least 30 psi when designed for a flow rate of 1.3 gpm or less. 		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <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"/> <input type="checkbox"/> <input type="checkbox"/>
<p>A5.303.5 Dual plumbing. New buildings and facilities shall be dual plumbed for potable and recycled water systems for toilet flushing when recycled water is available.</p>		<input type="checkbox"/>	<p><i>Special Inspector</i></p> <input type="checkbox"/>
<p><i>Description of proposed measures:</i></p>	<p style="text-align: right;"><i>Sheet: Detail:</i></p>		
<p>5.303.6 Plumbing Fixtures and Fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the requirements listed for each type in Items listed in Table 5.303.6.</p>	<input checked="" type="checkbox"/>		<p><i>Special Inspector</i></p> <input type="checkbox"/>
<p>OUTDOOR WATER USE See City of Santa Rosa Water Efficient Landscape Ordinance Requirements (Note: City WELO Complies with Tier I & Mandatory Requirements)</p>			<p>All verification by City Water Efficient Landscape Ordinance Staff</p>
<p>5.304.1 Water budget. A water budget shall be developed for landscape irrigation use in accordance with Chapter 14.30 of the Santa Rosa City Code – Water Efficient Landscape.</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
<p>5.304.2 Outdoor potable water use. For new water service, separate meters or submeters shall be installed for indoor and outdoor potable water use for landscaped areas. See Santa Rosa City Code Chapter 14.30</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
<p>5.304.3 Irrigation design. In new nonresidential projects with at least 1000 but not more than 2500 square feet of landscaped area, install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.</p> <p>5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:</p> <ol style="list-style-type: none"> 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. 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. 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> or <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification	
<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>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<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>		<input type="checkbox"/>	<input type="checkbox"/>	
<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>		<input type="checkbox"/>	<input type="checkbox"/>	
<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>		<input type="checkbox"/>	<input type="checkbox"/>	
<p>A5.304.8 Graywater irrigation system. Install graywater collection system for onsite subsurface irrigation using graywater. See Appendix G, 2010 California Plumbing Code.</p>		<input type="checkbox"/>	<input type="checkbox"/>	
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY		<i>All checked items are required for the project</i>	<i>Select at least one (1) elective measure from A5.4</i>	<i>Select all measures verified in the completed project</i>
EFFICIENT FRAMING SYSTEMS				
<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>A5.404.1.2 Framing specifications. Advanced framing techniques include the following:</p> <ol style="list-style-type: none"> 1. Building design using 2-ft. modules; 2. Spacing wall studs up to 24" o.c.; 3. Spacing floor and roof framing members up to 24" o.c.; 4. Using 2-stud corner framing and drywall clips or scrap lumber for drywall backing; 5. Eliminating solid headers in non-load-bearing walls; 6. Using in-line framing aligning floor, wall and roof framing members vertically for direct transfer of loads; and 7. Using single lumber headers and top plates where appropriate. 		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>	
MATERIAL SOURCES				
<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>		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>	

Feature or Measure	Project Requirements	Verification
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. 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. 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.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Special Inspector <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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.	<input type="checkbox"/>	Special Inspector <input type="checkbox"/>
A5.405.4 Recycled content. Use materials, equivalent in performance to virgin materials, with total (combined) recycled content value (RCV) for not less than 10% of the total material cost of the project. (Tier 1) For the purposes of this section, materials used as components of the structural frame shall not be used to calculate recycled content. The structural frame includes the load bearing structural elements such as wall studs, plates, sills, columns, beams, girders, joints, rafters and trusses. A5.405.4.1 Total material costs: The total material cost is the total estimated or actual cost of materials and assembly products used in the project. The required total recycled content value for the project (in dollars) shall be determined by Equation A5.4-1 or A5.4-2 Total material cost shall be calculated by using one of the methods specified below: Equation A5.4-1 Simplified method: To obtain the total cost of the project multiply the square footage of the structure by the square foot valuation established by the enforcing agency. The total material cost is 45% of the total cost of the project. Equation A5.4-2 Detailed method: To obtain the total cost of the project, add the estimated and/or actual costs of materials including structure (steel, wood, masonry); enclosure (roof, windows, doors, and exterior walls); interior walls, ceilings and finishes. The total estimated costs shall not include fees, labor and installation costs, overhead, appliances, equipment, furniture or furnishings. A5.405.4.2 Determination of total recycled content value (RCV). Total RCV may be determined either by dollars or percentage as noted below. Equation A5.4-4 Total RCV (in dollars): Total recycled content value of the materials (RCVm) and/or assemblies (RCVa) in dollars. The result of this calculation may be directly compared to Equations 5.4-1 or A5.4-2 to determine compliance with Tier 1 prerequisite. Equation A5.4-5 Total RCV (by percentage): Total recycled content value (percent) = [Total Recycled Content Value (dollars) ÷ Total Material Costs (dollars)] x 100. The result of this calculation may be directly compared for compliance with Tier 1 (10%) prerequisite. A5.405.4.3 Determination of recycled content value of materials (RCVm). The recycled content value of each material (RCVm) is calculated by multiplying the cost of material, as defined by recycled content. See equations A5.4-6 and A5.4-7. Equation A5.4-6 RCVm (dollars) = Material costs (dollars) x RCm (percent) Equation A5.4-7 RCm (percent) = Postconsumer percentage + (1/2) preconsumer content percentage. Note: If the manufacturer does not separately identify the pre-consumer and post-consumer recycled content of a material but reports it as a total single percentage, one half of the total shall be considered preconsumer and one	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> or <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> or <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> or <input checked="" type="checkbox"/> <input checked="" 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"/> <input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>half shall be considered postconsumer.</p> <p>A5.405.4.4 Determination of recycled content value of assemblies (RCVa). The recycled content value of assemblies (RCVa) is calculated by multiplying the total cost of assembly by the total recycled content of the assembly (RCa), and shall be determined by Equation A5.4-8</p> <p>Equation A5.4-8 $RCVa$ (dollars) = Assembly costs (dollars) x RCa (percent)</p> <p>If not provided by the manufacturer, Total RCa (percent) is the sum of the Proportional Recycled Content (PRCm) of each material in the assembly. Each material may be calculated in either percentage or pounds.</p>	☒		☐
<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"> 1. Portland cement shall meet ASTM C 150. 2. Blended Cement shall meet ASTM C 595 or ASTM C 1157. 3. 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>		☐ ☐ ☐ ☐ ☐	<p><i>Special Inspector</i></p> <p>☐ ☐ ☐ ☐</p>
<p>A5.405.5.3 Additional means of compliance. Any of the following measures may be employed for the production of cement or concrete, depending on their availability and suitability, in conjunction with A5.405.5.2.</p> <p>A5.405.5.3.1 Cement. The following measures may be used in the manufacture of cement.</p> <p>A5.405.5.3.1.1 Alternative fuels. Where permitted by state or local air quality standards, use alternative fuels.</p> <p>A5.405.5.3.1.2 Alternative power. Use alternate electric power generated at the cement plant and/or green power purchased from the utility meeting the requirements of A5.211.</p> <p>A5.405.5.3.2 Concrete. The following measures may be used in the manufacture of concrete,</p> <p>A5.405.5.3.2.1 Alternative energy. Renewable or alternative energy meeting the requirements of Section A5.211.</p> <p>A5.405.5.3.2.2 Recycled aggregates. Concrete made with one or more of the materials listed in Section A5.405.5.3.2.2.</p> <p>A5.405.5.3.2.3 Mixing water. Water meeting ASTM C1602, either recycled water provided by the local water purveyor or water reclaimed from manufacturing processes.</p> <p>A5.405.5.3.2.4 High strength concrete. Concrete elements designed to reduce their total size compared to standard 3,000 psi concrete, thereby reducing the total volume of cement, aggregate and water used on the project, as approved by the Engineer of Record.</p>		☐ ☐ ☐ ☐ ☐ ☐ ☐	<p><i>Special Inspector</i></p> <p>☐ ☐ ☐ ☐ ☐ ☐</p>
ENHANCED DURABILITY AND REDUCED MAINTENANCE			

Feature or Measure	Project Requirements		Verification
<p>stockpiled on site until the storage site is developed.</p> <p>Exception: Reuse, either on-or off-site, of vegetation or soil contaminated by disease or pest infestation.</p>			
<p>A5.408.3.1 Enhanced Construction waste reduction –Tier 1. Divert to recycle or salvage at least 65 percent of non-hazardous construction waste generated at the site.</p> <p>A5.408.3.1.2 Verification of compliance. A copy of the completed waste management report or documentation of certification of waste management company utilized shall be provided.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Excavated soil and land-clearing debris. 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 	☒		<i>Special Inspector</i> <input type="checkbox"/>
	☒		<input type="checkbox"/>
LIFE CYCLE ASSESSMENT			
<p>A5.409.1 General. Life cycle assessment shall be ISO 14044 compliant. The service life of the building and materials assemblies shall not be less than 60 years.</p> <p>A5.409.2 Whole building life cycle assessment. Conduct a whole building life assessment, including operating energy, showing that the building project achieves at least a 10 percent improvement for at least three of the impacts listed in Section AS.409.2.2, one of which shall be climate change, compared to a reference building.</p> <p>A5.409.3 Materials and system assemblies. If whole building analysis of the project is not elected, select a minimum of 50% of materials or assemblies based on life cycle assessment of at least three for the impacts listed in Section A5.409.2.2, one of which shall be climate change.</p> <p>A5.409.4 Substitution for prescriptive standards. Performance of a life cycle assessment completed in accordance with Section A5.409.2 may be substituted for other prescriptive provisions of Division A5.4, including those made mandatory through local adoption of Tier 1 in Division A5.6.</p> <p>A5.409.5 Verification of compliance. Documentation of compliance shall be provided as follows:</p> <ol style="list-style-type: none"> 1. The assessment is performed in accordance with ISO 14044. 2. The project meets the requirements of other parts of Title 24. 3. A copy of the analysis shall be made available to the enforcement authority. 4. A copy of the analysis and any maintenance or training recommendations shall be included in the operation and maintenance manual. 		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<i>Special Inspector</i> <input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
BUILDING MAINTENANCE AND OPERATION			
<p>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 non-hazardous materials for recycling.</p>	☒		<i>Special Inspector</i> <input type="checkbox"/>
<i>Description of proposed measures:</i>		<i>Sheet: Detail:</i>	
<p>5.410.2 Commissioning. For new buildings 10,000 square feet and over, building commissioning for all building systems covered by T24, Part 6, process systems, and renewable energy systems shall be included in the design and construction processes of the building project. Commissioning requirements shall include as a minimum items listed in 5.410.2.</p>	☒		<i>Special Inspector</i> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
fireplace, or a sealed woodstove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. 5.503.1.1 Woodstoves. Woodstoves shall comply with US EPA Phase II emission limits.	<input checked="" type="checkbox"/>		<input type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>
POLLUTANT CONTROL			<i>All verification by Special Inspector</i>
A5.504.1 Indoor air quality (IAQ) during construction. Maintain IAQ as provided in Sections A5.504.1.1 and A5.504.1.2. A5.504.1.1 Temporary ventilation. Provide temporary ventilation during construction in accordance with Section 121 of the California Energy Code, CCR, Title 24, Part 6, and Chapter 4 of CCR, Title 8, and as listed in Items 1 through 4 in A5.504.1.2. A5.504.1.2 Additional IAQ measures. Employ additional measures as listed in Items 1 through 5 in A5.504.1.2:		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
5.504.2 IAQ post-construction. After all interior finishes have been installed, flush out the building per Section 5.504.2 prior to occupancy or if the building is occupied. A5.504.2.1 IAQ Testing. A testing alternative may be employed after all interior finishes have been installed, using testing protocols recognized by the United States Environmental Protection Agency (U.S. EPA) and in accordance with Section A5.504.2.1.2. A5.504.2.1.1 Maximum levels of contaminants. Allowable levels of contaminant concentrations measured by testing shall not exceed the following: <ol style="list-style-type: none"> 1. Carbon Monoxide (CO): 9 parts per million, not to exceed outdoor levels by 2 parts per million; 2. Formaldehyde: 27 parts per billion; 3. Particulates (PM10): 50 micrograms per cubic meter; 4. 4-Phenylcyclohexene (\$-PCH): 6.5 micrograms per cubic meter; and 5. Total Volatile Organic Compounds (TVOC): 300 micrograms per cubic meter. A5.504.2.1.2 Test protocols. Testing of indoor air quality should include the elements listed in Items 1 through 4. A5.504.2.1.3 Noncomplying building areas. For each sampling area of the building exceeding the maximum concentrations specified in Section A5.504.2.1.1, flush out with outside air and retest samples taken from the same area. Repeat the procedures until testing demonstrates compliance		<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"/>
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 checked="" type="checkbox"/>		<input type="checkbox"/>
5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4. 5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the project shall meet the requirements of the following standards. <ol style="list-style-type: none"> 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant 	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>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> <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 California Code of Regulations, Title 17, commencing with Section 94507.</p>			
<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 94520 et seq).</p> <p>5.504.4.3.2 Verification. Verification of compliance with this section shall be provided as requested by the enforcing agency.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<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 one of the four standards listed in 5.504.4.4.</p> <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> <p>5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 504.4.1.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <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> <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.</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 checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
<p>A5.504.4.7 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools (CHPS) criteria and listed on its High Performance Schools Data-base; products compliant with CHPS criteria certified under the Greenguard Children and Schools program; certified under the Resilient Floor Covering Institute FloorScore program; or meet California Department of Public Health 2010 Standard. (Tier 1)</p> <p>A5.504.4.7.2 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.</p>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
<p>A5.504.4.8 Thermal Insulation. Comply with all of the following: (Tier 1)</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
<p>1. Chapter 12-13 in Title 24, Part 12</p> <p>2. The VOC-emission limits defined in 2009 CHPS criteria and listed on its High performance Products Database.</p> <p>3. California Department of public Health 2010 Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 February 2010.</p> <p>A5.504.4.8.2 Verification of compliance. Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
<p>A5.504.4.9 Acoustical ceilings and wall panels. Comply with Chapter 8 in Title 24, Part 2, the California Building Code and with the VOC-emission limits defined in the 2009 CHPS criteria and listed on its High Performance Products Data-base.</p> <p>A5.504.4.9.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.</p>		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
<p>A5.504.5 Hazardous particulates and chemical pollutants. Minimize and control pollutant entry into buildings and cross-contamination of regularly occupied areas.</p> <p>A5.504.5.1 Entryway systems. Install permanent entryway systems measuring at least six feet in the primary direction of travel to capture dirt and particulates at entryways directly connected to the outdoors as listed in Items 1 through 3 in A5.504.5.1.</p> <p>A5.504.5.2 Isolation of pollutant sources. In rooms where activities produce hazardous fumes or chemicals, exhaust them and isolate them from their adjacent rooms as listed in Items 1 through 3 in A5.504.5.2.</p> <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> <p>Exception: A MERV-1 filter shall be allowed for return air only or return with prefiltered outside air, if the filter is of a reusable, nondisposable type, and the fan energy use of that air delivery system is 0.4 W/cfm or less at design air flow.</p> <p>A5.504.5.3.1 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 11.</p>	<input checked="" 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>5.504.7 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 where outdoor areas are provided for smoking, and in buildings as already prohibited by other laws or regulations; or as enforced by ordinances, regulations, or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of prohibitions.</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
INDOOR 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 1203 (ventilation) and Chapter 14 (Exterior walls).</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
INDOOR AIR QUALITY			
<p>5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 121 (Requirements for Ventilation) of the 2010 California Energy Code, CCR, Title 24, Part 6 and</p>	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Feature or Measure	Project Requirements		Verification
Chapter 4 of CCR, Title 8, or the applicable local code, whichever is more stringent.			
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 latest edition of the California Energy Code, CCR, Title 24, Part 6, Section 121(c).	☒		☐
<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>		☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
<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 2010 California Energy Code. In constructing a design, consider Items listed 1 through 4 in A5.507.2.</p>		☐	☐
<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>		☐ ☐ ☐	☐ ☐ ☐
<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>	☒		☐

Feature or Measure	Project Requirements		Verification
<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 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, 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> <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, 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>	☒		☐
	☒		☐
	☒		☐
	☒		☐
	☒		☐
	☒		☐
	☒		☐
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>	As applicable		
<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>			
<p>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.</p>		☐	☐
<p>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>		☐	☐
ADDITIONAL ELECTIVE MEASURE			
<p>A5.601.2.4.5 Additional elective measure. Pursuant to Tier 1 requirements, select one additional Tier 1 elective measure from any division.</p>	☒		<i>Special Inspector</i> ☐

INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS

*All checked
items are
required for
the project*

*Select all measures
verified in the
completed project*

Qualifications			
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input checked="" type="checkbox"/>		Special Inspector <input type="checkbox"/>
702.2 The green building special inspector for this project <u>is listed by the City of 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: _____

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 2010 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 2010 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)