



2013 City of Oakland CALGreen Checklist for NEW NON-RESIDENTIAL BUILDINGS

Scope: *The provisions of this checklist apply only to newly constructed non-residential buildings. Repairs (not additions or alterations) to existing structures are not subject to the requirements of CALGreen.*

PLEASE NOTE: The City of Oakland has adopted local mandatory green building requirements (O.M.C. Chapter 18) in addition to the state CALGreen requirements which must be implemented for certain projects.

- 1) Projects between 5,000 and 25,000 square feet must complete the Alameda County Small Commercial Checklist and implement all applicable measures within the scope of work.
- 2) Projects over 25,000 square feet must retain a LEED Accredited Professional, complete the LEED New Construction Checklist and attain a US Green Building Council LEED Silver certification through the Green Building Certification Institute.

Project Address: _____

Project Name: _____

Project Description: _____

Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS <i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i>	Column 2 Project Requirements <i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i>	Column 3 Verification <i>Complete after implementation and prior to final inspection approval</i>
PLANNING & DESIGN (DIVISION 5.1)		
5.106.1 Storm water pollution prevention. Meet the requirements of the City of Oakland's Municipal Code Chapter 13.16.100C Stormwater Management Ordinance. <i>Certain projects must also comply with NPDES C.3 Requirements. Please refer to the City of Oakland's Overview of Provision C.3 and the website of the Alameda Countywide Clean Water Program: http://www.cleanwaterprogram.org/</i> ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.106.4 Bicycle parking. Meet the requirements of Chapter 17.117 of Oakland's Planning Code of the City of Oakland's Bike Parking Ordinance. ²	<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹ Modified to conform with Chapter 13.16.100C of Oakland's Municipal Code.

² Modified to conform with Chapter 17.117 of Oakland's Planning Code.

<p align="center">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p align="center"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p align="center">Column 2 Project Requirements</p> <p align="center"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p align="center">Column 3 Verification</p> <p align="center"><i>Complete after implementation and prior to final inspection approval</i></p>																
<p>5.106.5.2 Designated parking for fuel-efficient vehicles. For projects that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient, and carpool/van pool vehicles as shown based on the number of additional spaces.</p> <table border="0"> <tr> <td><u>Total # of Parking Spaces</u></td> <td><u>Number of Required Spaces</u></td> </tr> <tr> <td>10-25</td> <td>1</td> </tr> <tr> <td>26-50</td> <td>3</td> </tr> <tr> <td>51-75</td> <td>6</td> </tr> <tr> <td>76-100</td> <td>8</td> </tr> <tr> <td>101-150</td> <td>11</td> </tr> <tr> <td>151-200</td> <td>16</td> </tr> <tr> <td>201+</td> <td>8% of total</td> </tr> </table> <p>5. 106.5.2.1 Parking stall marking. If applicable above, paint 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: " CLEAN AIR /VANPOOL / EV "</p>	<u>Total # of Parking Spaces</u>	<u>Number of Required Spaces</u>	10-25	1	26-50	3	51-75	6	76-100	8	101-150	11	151-200	16	201+	8% of total	<p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>
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<p>5.106.8 Light pollution reduction. [Effective 7/1/2014] Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> The minimum requirements of the California Energy Code for Lighting Zone 2 as defined in Chapter 10 of the California Administrative Code; and Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-11; and Allowable BUG ratings not exceeding those shown in Table 5.106.8 <p>Exceptions:</p> <ol style="list-style-type: none"> Luminaires that qualify as exceptions in the California Energy Code. Emergency lighting. 	<p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>																
<p>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 water measures which keep surface water away from buildings and aid in groundwater recharge.</p>	<p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p>																
<p>EFFICIENCY EFFICEINCY (Division 5.2)</p>																		
<p>5.201.1 Scope. Building meets or exceeds the requirements of the California Building Energy Efficiency Standards.</p>	<p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p>																
<p>WATER EFFICIENCY AND CONSERVATION (Division 5.3)</p>																		
<p>5.303.1 Meters. Separate meters shall be installed for the uses described in Sections 5.303.1.1 and 5.303.1.2 below.</p> <p>5.303.1.1 For new buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:</p> <ol style="list-style-type: none"> For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: <ol style="list-style-type: none"> Makeup water for cooling towers where flow through is greater than 500 gpm. Makeup water for evaporative coolers greater than 6 gpm. Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW) <p>5.303.1.2 Excess consumption. Any building within a project or space within a building that is projected to consume more than 1,000 gal/day.</p>	<p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p> <p align="center"><input checked="" type="checkbox"/></p>	<p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p> <p align="center"><input type="checkbox"/></p>																

<p style="text-align: center;">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p style="text-align: center;"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p style="text-align: center;">Column 2 Project Requirements</p> <p style="text-align: center;"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p style="text-align: center;">Column 3 Verification</p> <p style="text-align: center;"><i>Complete after implementation and prior to final inspection approval</i></p>
<p>5.303.2 Water reduction. Plumbing fixtures shall meet the maximum flow rate values shown in CALGreen Table 5.303.2.3, OR</p> <p>Demonstrate a 20% overall water-use reduction in the building “water-use baseline” as established in CALGreen Table 5.303.2.2. (Calculate savings by Water Use Worksheets – WS-1 and WS-3.) .</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.303.3 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:</p> <p>5.303.3.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type Toilets.</p> <p>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 0.5 gallons per flush.</p> <p>5.303.3.3 Showerheads. Note: A hand-held shower shall be considered a showerhead.</p> <p>5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.</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 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.303.4 Wastewater reduction. Each building shall reduce by 20% wastewater by <u>one</u> of the following methods:</p> <p><input type="checkbox"/> The installation of water-conserving fixtures; or</p> <p><input type="checkbox"/> Utilizing non-potable water systems</p>	<p style="text-align: center;"><i>As applicable</i></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.303.6 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1401.1 of the California Plumbing Code and in Chapter 6 of this code.</p>	<p style="text-align: center;"><i>As applicable</i></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>5.304.1 Water budget A water budget shall be developed for newly installed or rehabilitated landscaping or irrigation systems installed in conjunction with an addition or alteration in accordance with the California Model Water Efficient Landscape Ordinance (WELO).</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>5.304.2 Outdoor potable water use. For new water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet, separate meters or submeters shall be installed for outdoor potable water use.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>

<p style="text-align: center;">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p style="text-align: center;"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p style="text-align: center;">Column 2 Project Requirements</p> <p style="text-align: center;"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p style="text-align: center;">Column 3 Verification</p> <p style="text-align: center;"><i>Complete after implementation and prior to final inspection approval</i></p>
<p>5.304.3 Irrigation design. In new nonresidential projects with between 1,000 and 2,500 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. 	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY (Division 5.4)		
<p>5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>5.407.2 Moisture control. Employ moisture control measures by the following methods;</p> <p>5.407.2.1 Sprinklers. Prevent irrigation spray on structures.</p> <p>5.407.2.2 Entries and openings. Design exterior entries and openings to prevent water intrusion into buildings.</p> <p>5.407.2.2.1 Exterior Door Protection. Primary exterior entries and/or openings 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: installed awning at least 4' in depth, door is protected by roof overhang at least 4' in depth, door is recessed at least 4', other methods of equivalent protection.</p> <p>5.407.2.2.2 Flashing. Install flashings integrated with the drainage plane.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.408.1 Construction waste management. Meet the requirements of Oakland's Municipal Code Chapter 15.34 Construction and Demolition Debris Waste Reduction and Recycling Requirements for new non-residential buildings.³</p> <p>5.408.3 Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. Exception: Reuse, either on-or off-site, of vegetation or soil contaminated by disease or pest infestation.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.410.1 Recycling by occupants. Adequate areas for collection and loading of recyclable materials adequate in number and capacity to serve that portion of the development project shall be provided per Section 17.118 of Oakland's Planning Code.⁴</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>

³ Modified to conform with Chapter 15.34 of Oakland's Municipal Code.

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<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 items listed in 5.410.2. Exceptions:</p> <ol style="list-style-type: none"> 1. Dry storage warehouses of any size 2. Areas under 10,000 square feet used for offices or other conditioned accessory spaces within dry storage warehouses 3. Tenant improvements under 10,000 square feet as described in Section 303.1.1. 4. {Effective 7/1/2014} Commissioning requirements for energy systems covered by the 2013 California Energy Code. <p>5.410.2.1 Owner's Project Requirements (OPR). Documented before the design phase of the project begins the OPR shall include items listed in 5.410.2.1⁵.</p> <p>5.410.2.2 Basis of Design (BOD). A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project to cover the systems listed in 5.410.2.2⁴.</p> <p>5.410.2.3 Commissioning plan. A commissioning plan describing how the project will be commissioned shall include items listed in 5.410.2.3.</p> <p>5.410.2.4 Functional performance testing shall demonstrate the correct installation and operation of each component, system, and system-to-system interface per approved plans and specifications.</p> <p>5.410.2.5 Documentation and training. A Systems Manual and Systems Operations Training are required.</p> <p>5.410.2.5.1 Systems manual. The Systems Manual shall be delivered to the building owner or representative and the facilities operator and shall include the items listed in 5.410.2.5.1.</p> <p>5.410.2.5.2 Systems operations training. A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and shall include items listed in 5.410.2.5.2.</p> <p>5.410.2.6 Commissioning report. A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or owner's representative.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.410.4 Testing, adjusting and balancing. Testing, adjusting and balancing of systems shall be required for new buildings less than 10,000 square feet.</p> <p>5.410.4.2 Systems. Develop a written plan of procedures for testing, adjusting and balancing systems. Systems to be included for testing, adjusting and balancing shall include at a minimum, as applicable to the project, the systems listed in 5.410.2. (Support documentation required at application submittal)</p> <p>5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with applicable standards on each system as determined by the enforcing agency.</p> <p>5.410.4.3.1 HVAC balancing. Before a new space-conditioning system serving a building or space is operated for normal use, the system should be balanced in accordance with the procedures defined by national standards listed in 5.410.4.3.1.</p> <p>5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p>5.410.4.5 Operation and maintenance manual. Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.</p> <p>5.410.4.5.1 Inspections and reports. Include a copy of all inspection verification and reports to the enforcing agency.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>

⁵ Where the 2013 California Energy Code is referenced, the effective date of the provision is 7/1/2014.

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ENVIRONMENTAL QUALITY (Division 5.5)		
<p>5.503.1 General (Fireplaces).⁶ Meet the requirements of Oakland's Municipal Code Chapter 8.19 Wood-Burning Appliances.</p>	☒	☐
<p>5.504.1.3 Temporary ventilation. If the HV AC system serving the added or altered area(s) 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 of the HV AC system serving the added or altered area(s) immediately prior to occupancy.</p>	☒	☐
<p>5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.</p>	☒	☐
<p>5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.</p> <p>5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the project shall meet the requirements of the following standards.</p> <ol style="list-style-type: none"> 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. 	☒ ☒ ☒	☐ ☐ ☐
<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>	☒ ☒ ☒	☐ ☐ ☐
<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 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 5.504.4.1.</p>	☒ ☒ ☒	☐ ☐ ☐

⁶ Modified to conform with Chapter 8.19 of the Oakland Municipal Code.

<p style="text-align: center;">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p style="text-align: center;"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p style="text-align: center;">Column 2 Project Requirements</p> <p style="text-align: center;"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p style="text-align: center;">Column 3 Verification</p> <p style="text-align: center;"><i>Complete after implementation and prior to final inspection approval</i></p>
<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>A5.504.4.5.3 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 as applicable.</p> <ol style="list-style-type: none"> 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.) 4. Exterior grade products marked as meeting the PS-I 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. 	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.504.4.7 Resilient flooring systems. Comply with VOC –emission limits defined in the 2012 CHPS criteria and listed in the High Performance Products Database; products compliant with CHPS criteria certified under Greenguard Children and Schools program; certified under the FloorScore program for the Resilient Floor covering Institute; or meet the California Department of Public Health 2010 Specification.</p> <p>5.504.4.7.2 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></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 that provides at least a MERV of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual. Exceptions:</p> <ol style="list-style-type: none"> 1. <i>[Effective 7/1/2014]</i> An ASHRAE 10-percent to 15-percent efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow. 2. Existing mechanical equipment. <p>5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.504.7 Environmental tobacco smoke (ETS) control.⁷ Meet the requirements of Oakland’s Municipal Code Chapter 8.30 Smoking.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<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 and Chapter 14.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>5.506.1 Outside air delivery. <i>[Effective 7/1/2014]</i> For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 121 of the California Energy Code and Chapter 4 of CCR, Title 8, or the applicable local code, whichever is more stringent.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>5.506.2 Carbon dioxide (CO₂) monitoring. <i>[Effective 7/1/2014]</i> 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, Section 121(c).</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>

⁷ Modified to conform with Chapter 8.30 of Oakland’s Municipal Code.

<p style="text-align: center;">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p style="text-align: center;"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p style="text-align: center;">Column 2 Project Requirements</p> <p style="text-align: center;"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p style="text-align: center;">Column 3 Verification</p> <p style="text-align: center;"><i>Complete after implementation and prior to final inspection approval</i></p>
<p>5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E 90 and ASTM E 413 or OITC determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 <u>or</u> 5.507.4.2.</p> <p>5.507.4.1 Exterior noise transmission, <u>Prescriptive Method.</u> 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 and 2 in section 5.507.4.1.</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>or</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>5.507.4.2 Interior sound. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><i>Choose either Prescriptive or Performance method</i></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;">or</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;">or</p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><i>Verify either Prescriptive or Performance method</i></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">or</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;">or</p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<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 style="text-align: center;"><i>As applicable</i></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p> <p style="text-align: center;"><input type="checkbox"/></p>
<p>5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of section 5.508.2 when installed in retail food stores 8,000 square feet 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) 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 non-ozone depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p> <p style="text-align: center;"><i>As applicable</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>QUALIFICATIONS</p>		
<p>702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.</p>	<p style="text-align: center;"><input checked="" type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/></p>

<p style="text-align: center;">Column 1 Feature or Measure MANDATORY MEASURES FOR NEW CONSTRUCTION OF NONRESIDENTIAL BUILDINGS</p> <p style="text-align: center;"><i>See Chapter 5 and Appendix A5 of the 2013 California Green Building Code for complete descriptions of features or measures listed here.</i></p>	<p style="text-align: center;">Column 2 Project Requirements</p> <p style="text-align: center;"><i>When checked, these items become a part of the approved plans and must be installed or incorporated into the project.</i></p>	<p style="text-align: center;">Column 3 Verification</p> <p style="text-align: center;"><i>Complete after implementation and prior to final inspection approval</i></p>
VERIFICATIONS		
<p>703.1 Verification of compliance with CALGreen may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. Implementation verification shall be submitted to the Building Department after implementation of all required measures and prior to final inspection approval.</p>	☒	☐

Design Verification

Complete the “Design Verification” and submit the completed checklist (Columns 1 and 2) with the plans and building permit application to the Oakland Planning and Zoning Department or the Building Services Division as applicable.

The owner and design professional 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.

Owner’s Signature

Date

Owner Name (Please Print)

Design Professional’s Signature

Date

Design Professional’s Name (Please Print)