



## 2019 CAL GREEN NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST

DATE: \_\_\_\_\_

PERMIT NUMBER: BLD \_\_\_\_\_

JOB ADDRESS: \_\_\_\_\_

APPLICANT'S NAME: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

Following is a standardized checklist of the 2019 California Green Building Standards Code (CalGreen) requirements that may be used to demonstrate compliance with the CalGreen Mandatory Measures (chapter 5 and FMC 15.48). This checklist applies to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above. Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work. Complete and reproduce checklist on to the plan sets.

CALGREEN REFERENCE AND DESCRIPTION	DESIGNER'S COMMENTS WITH PLAN SHEET REFERENCE	CITY USE: FIELD VERIFICATION
<b>PLANNING AND DESIGN – SITE DEVELOPMENT</b>		
<b>Storm water pollution prevention – 5.106.1.</b> Newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of stormwater runoff from the construction activities through one or more of the following measures: <ol style="list-style-type: none"> <li>1. Local ordinance. Comply with a lawfully enacted stormwater management and/or erosion control ordinance.</li> <li>2. Best management practices (BMP). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP.</li> </ol>		
<b>Short-term bicycle parking – 5.106.4.1.1.</b> If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. <b>Exception:</b> <ol style="list-style-type: none"> <li>1. Additions or alterations which add nine or less visitor vehicular parking spaces.</li> </ol>		
<b>Long-term bicycle parking – 5.106.4.1.2.</b> For new buildings with over 10 tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5% of the tenant vehicular parking spaces being added, with a minimum of one space.		
<b>Designated parking – 5.106.5.2.</b> In new projects or additions of alterations 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 on Table 5.106.5.2.		

<p><b>Electric Vehicle (EV) Charging - 5.106.5.3.</b>          [N] Construction shall comply with Section 5.106.5.3.1 or 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE).          For number of required EV Ready parking spaces, see FMC 15.48.060, amendments to 5.106.5.3.</p> <table border="1" data-bbox="121 262 1105 646"> <thead> <tr> <th>Total Number of Actual Parking Spaces</th> <th>Number of Required EV-Ready Parking Spaces</th> </tr> </thead> <tbody> <tr> <td>0-9</td> <td>1</td> </tr> <tr> <td>10-25</td> <td>2</td> </tr> <tr> <td>26-50</td> <td>4</td> </tr> <tr> <td>51-75</td> <td>6</td> </tr> <tr> <td>76-100</td> <td>9</td> </tr> <tr> <td>101-150</td> <td>12</td> </tr> <tr> <td>151-200</td> <td>17</td> </tr> <tr> <td>201 and over</td> <td>10% of total standard spaces (rounded up to the nearest whole number)</td> </tr> </tbody> </table>	Total Number of Actual Parking Spaces	Number of Required EV-Ready Parking Spaces	0-9	1	10-25	2	26-50	4	51-75	6	76-100	9	101-150	12	151-200	17	201 and over	10% of total standard spaces (rounded up to the nearest whole number)		
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<p><b>Light pollution reduction. – 5.106.8</b>          [N] Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> <li>The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10 of the California Administrative Code; and</li> <li>Backlight, Uplight and Glare (BUG) ratings as defined in IESNA TM-15-11; and</li> <li>Allowable BUG ratings not exceeding those shown in Table 5.106.8</li> </ol> <p>or comply with local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.</p> <p><b>Exception: [N]</b></p> <ol style="list-style-type: none"> <li>Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.</li> <li>Emergency lighting</li> <li>Building façade meeting the requirements in Table 140.7-B of the California Energy Code, part 6.</li> <li>Custom lighting features as allowed by local enforcing agency, as permitted by Section 101.8 Alternate Materials, Designs and Methods of Construction.</li> </ol> <p><b>Note: [N]</b> See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.</p>																				
<p><b>Grading and paving – 5.106.10.</b>          Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.</p> <p><b>Exception:</b></p> <ol style="list-style-type: none"> <li>Additions and alterations not altering the drainage path.</li> </ol>																				
<b>ENERGY EFFICIENCY</b>																				
<p><b>5.201.1 Scope</b>          The California Energy Commission will continue to adopt mandatory building standards.</p>																				
<b>WATER EFFICIENCY AND CONSERVATION</b>																				
<p><b>Meters – 5.303.1.</b></p>																				

Separate submeters or metering devices shall be installed for the uses described below:		
<p><b>New buildings or additions in excess of 50,000 square feet.</b>  For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day, including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.</p>		
<p><b>New buildings or additions in excess of 50,000 square feet</b>  For water supplied to the following subsystems, where separate submeters for individual building tenants are unfeasible:  a) Makeup water for cooling towers where flow through is greater than 500 gpm  b) Makeup water for evaporative coolers greater than 6gpm  c) Steam and hot-water boilers with energy input more than 500,000 Btu/h</p>		
<p><b>Excess consumption – 5.303.1.2.</b>  For any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.</p>		
<p><b>Water conserving plumbing fixtures and fittings – 5.303.3</b>  Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:</p>		
<p><b>Water closets – 5.303.3.1</b>  The effective flush volume of all water closets shall not exceed 1.28 gpf.</p>		
<p><b>Urinals – 5.303.3.2</b>  The effective flush volume of urinals shall not exceed 0.5 gpf for floor mounted and 0.125 for wall mounted.</p>		
<p><b>Single showerheads – 5.303.3.3.1</b>  Showerheads shall have a max. flow rate of not more than 2.0 gpm at 80 psi.</p>		
<p><b>Multiple showerheads – 5.303.3.3.2</b>  When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.</p>		
<p><b>Nonresidential lavatory faucets – 5.303.3.4.1</b>  The flow rate shall not exceed 0.5 gpm at 60 psi.</p>		
<p><b>Kitchen faucets – 5.303.3.4.2</b>  The flow rate shall not exceed 1.8 gpm at 60 psi. Kitchen faucet can temporarily increase the flow rate above the maximum rate, not to exceed 2.2 gpm @ 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.</p>		
<p><b>Wash fountains – 5.303.3.4.3</b>  The flow rate shall not exceed 1.8 gpm</p>		
<p><b>Metering faucets – 5.303.3.4.4</b>  The flow rate shall not exceed 0.20 gallons per cycle.</p>		
<p><b>Metering faucets for wash fountains – 5.303.3.4.5</b>  The flow rate shall not exceed 0.20 gpm.</p>		
<p><b>Commercial Kitchen Equipment – 5.303.4</b></p>		

Food waste disposers shall modulate the use of water to no more than 1 gpm when the disposer is not in use or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.		
<b>Areas of addition or alteration – 5.303.5</b> Provisions of Section 5.303.5 shall apply to new fixtures in additions or areas of alterations to all buildings within the authority of the California Building Standards Commission.		
<b>Standards for plumbing fixtures and fittings – 5.303.6.</b> Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code and Chapter 6 of this code.		
<b>Water budget – 5.304.1.</b> Comply with a local water efficient landscape ordinance or the current California Department of Water Resources’ Model Water Efficient Landscape Ordinance (MWELo), whichever is more stringent.		
<b>Outdoor potable water use – 5.304.6.</b> Landscape Projects within Public schools and community colleges as described in Section 5.304.6.1 and 5.304.6.2 shall comply with California Department of Water Resources’ Model Water Efficient Landscape Ordinance (MWELo) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35. <b>Exception:</b> Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELo.		
<b>Newly constructed landscapes – 5.304.6.1</b> New construction projects with an aggregate landscape area equal to or greater than 500 square feet.		
<b>Rehabilitated landscape – 5.304.6.2.</b> Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.		
<b>Outdoor recycled water supply systems – 5.305.1</b> Recycled water supply system shall be installed in accordance with Sections 5.305.1.1 and 5.305.1.2 and the California Plumbing Code.		
<b>MATERIAL CONSERVATION AND RESOURCE</b>		
<b>Weather protection – 5.407.1.</b> Provide a weather-resistant exterior wall and foundation envelope as required per CBC 1402.2 (weather protection).		
<b>Moisture control - 5.407.2.</b> Employ moisture control measures by the following methods; <b>Sprinklers.</b> Prevent irrigation spray on structures. <b>Entries and openings.</b> Design exterior entries and openings to prevent water intrusion into buildings.		
<b>Construction waste management – 5.408.1.</b> A minimum of 65% of the non-hazardous construction and demolition waste generated at the site shall be diverted to recycle or salvaged. This is achieved by submitting a Waste Management Plan for approval by the Building and Safety Department prior to demolition permit issuance and providing documentation to demonstrate compliance		

with the Waste Management Plan after completion of demolition and/or prior to final inspection.		
<b>Excavated soil and land clearing debris – 5.408.3.</b> 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.		
<b>Recycling by occupants – 5.410.1.</b> Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling.  <b>Additions.</b> All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. <b>Exceptions:</b> Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.		
<b>Commissioning – 5.410.2.</b> For new buildings 10,000 square feet and over, building commissioning for all building operating systems covered by T24, Part 6, process equipment and controls, and renewable energy systems shall be included in the design and construction processes of the building project to verify they meet the owner’s or owner representative’s project requirements. Commissioning shall be performed by trained personnel with experience on projects of comparable size and complexity.		
<b>Owner's Project Requirements (OPR) – 5.410.2.1</b> The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins.		
<b>Basis of Design (BOD) – 5.410.2.2.</b> 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.		
<b>Commissioning Plan – 5.410.2.3</b> A commissioning plan describing how the project will be commissioned shall be completed prior to permit issuance.		
<b>Functional Performance Testing – 5.410.2.4</b> Functional performance tests shall demonstrate the correct installation and operation of each component, system, and system-to-system interface in accordance with the approved plans and specifications.		
<b>Documentation &amp; Training – 5.410.2.5</b> Systems manual and systems operations training shall be provided.  <b>Systems Manual</b> The Systems Manual, which includes documentation of the operational aspects of the building, shall be delivered to the building owner or representative and facilities operator.  <b>Systems Operations Training</b> A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report.		

<p><b>Commissioning Report – 5.410.2.6</b>  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 representative.</p>		
<p><b>Testing and Adjusting – 5.410.4.</b>  Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to sec. 303.1.</p> <p><b>Systems</b>  Develop a written plan of procedures for testing and adjusting systems.</p> <p><b>Procedures</b>  Perform testing and adjusting procedures in accordance with manufacturer’s specifications and applicable standards on each system.</p> <p><b>HVAC Balancing</b>  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 standards as listed in sec. 5.410.4.3.1.</p> <p><b>Reporting</b>  After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p><b>Operation and Maintenance (O&amp;M) Manual.</b>  Provide the building owner with detailed operating and maintenance instructions and copies of guaranties/warranties for each system prior to final inspection.</p> <p><b>Inspections and reports.</b>  Include a copy of all inspection verifications and reports required by the enforcing agency.</p>		
<b>ENVIRONMENTAL QUALITY</b>		
<p><b>Fireplaces – 5.503.1</b>  Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Wood stoves and pellet stoves shall comply with U.S. EPA Phase II emission limits where applicable.</p>		
<p><b>Pollutant Control – 5.504</b>  Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.</p> <p><b>Temporary Ventilation:</b> The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a MERV of 8. Replace all filters immediately prior to occupancy, or if the building is occupied during alteration, at the conclusion of construction.</p>		
<p><b>Covering of duct openings/protection of equipment:</b> Duct openings and other related air distribution component openings shall be covered during construction.</p>		

Adhesives, sealants and caulks shall be compliant with VOC limits per sec. 5.504.4.1.

<b>ADHESIVE VOC LIMIT <sup>1,2</sup></b> <b>(Less Water and Less Exempt Compounds in Grams per Liter)</b>	
<b>ARCHITECTURAL</b>	<b>VOC LIMIT</b>
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet adhesives	150
Wood flooring adhesive	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250
Other adhesives not specifically listed	50
<b>SPECIALTY APPLICATIONS</b>	
PVC welding	510
CPVC welding	490
ABS welding	325
Plastic cement welding	250
Adhesive primer for plastic	550
Contact adhesive	80
Special purpose contact adhesive	250
Structural wood member adhesive	140
Top and trim adhesive	250
<b>SUBSTRATE SPECIFIC APPLICATIONS</b>	
Metal to metal	30
Plastic foams	50
Porous material (except wood)	50
Wood	30
Fiberglass	80

1. If an adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content shall be allowed.
2. For additional information regarding methods to measure VOC content specified in table, see South Coast Air Quality Management District Rule 1168.

<b>SEALANT VOC LIMIT</b> <b>(Less Water and Less Exempt Compounds in Grams per Liter)</b>	
<b>SEALANTS</b>	<b>VOC LIMIT</b>
Architectural	250
Marine deck	760
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
<b>SEALANT PRIMERS</b>	
Architectural Nonporous	250
Porous	775
Modified bituminous	500
Marine deck	760
Other	750

Paints, stains and other coatings shall be compliant with VOC limits per sec. 5.504.4.3.

**VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS  
(Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds)**

<b>COATING CATEGORY</b>	<b>VOC</b>
Flat coatings	50
Nonflat coatings	100
Nonflat-high gloss coatings	150
<b>SPECIALTY COATING</b>	<b>Specialty</b>
Aluminum roof coatings	400
Basement specialty coatings	400
Bituminous roof coatings	50
Bituminous roof primers	350
Bond breakers	350
Concrete curing compounds	350
Concrete/masonry sealers	100
Driveway sealers	50
Dry fog coatings	150
Faux finishing coatings	350
Fire resistive coatings	350
Floor coatings	100
Form-release compounds	250
Graphic arts coatings (sign paints)	500
High temperature coatings	420
Industrial maintenance coatings	250
Low solids coatings <sup>†</sup>	120
Magnesite cement coatings	450
Mastic texture coatings	100
Metallic pigmented coatings	500
Multicolor coatings	250
Pretreatment wash primers	420
Primers, sealers, and undercoaters	100
Reactive penetrating sealers	350
Recycled coatings	250
Roof coatings	50
Rust preventative coatings	250
Shellacs	
Clear	730
Opaque	550
Specialty primers, sealers and undercoaters	100
Stains	250
Stone consolidants	450
Swimming pool coatings	340
Traffic marking coatings	100
Tub and tile refinish coatings	420
Waterproofing membranes	250
Wood coatings	275
Wood preservatives	350
Zinc-rich primers	340

Aerosol paints and coatings shall be compliant with Product-Weighted MIR limits for ROC, VOC and other toxic compounds limits per sec. 5.504.4.3.1.



<p>Carpet and carpet systems shall be compliant with the testing and product requirements per sec. 5.504.4.4, 504.4.4.1, 504.4.4.2.</p>																
<p>Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the formaldehyde limits per sec. 5.504.4.5.</p> <table border="1" data-bbox="134 296 1135 560"> <thead> <tr> <th colspan="2" data-bbox="134 296 1135 363"> <b>FORMALDEHYDE LIMITS<sup>1</sup></b>  <b>(Maximum formaldehyde Emissions in Parts per Million)</b> </th> </tr> <tr> <th data-bbox="134 363 834 394"><b>PRODUCT</b></th> <th data-bbox="834 363 1135 394"><b>LIMIT</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="134 394 834 426">Hardwood plywood veneer core</td> <td data-bbox="834 394 1135 426">0.05</td> </tr> <tr> <td data-bbox="134 426 834 457">Hardwood plywood composite core</td> <td data-bbox="834 426 1135 457">0.05</td> </tr> <tr> <td data-bbox="134 457 834 489">Particleboard</td> <td data-bbox="834 457 1135 489">0.09</td> </tr> <tr> <td data-bbox="134 489 834 520">Medium density fiberboard</td> <td data-bbox="834 489 1135 520">0.11</td> </tr> <tr> <td data-bbox="134 520 834 560">Thin medium density fiberboard<sup>2</sup></td> <td data-bbox="834 520 1135 560">0.13</td> </tr> </tbody> </table> <p data-bbox="147 604 1105 674">1. Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E 1333-96(2002). For additional information, see California Code of Regulations, Title 17, Sections 93120 through 93120.12.</p> <p data-bbox="147 680 842 707">2. Thin medium density fiberboard has a maximum thickness of 5/16 inch (8mm)</p>	<b>FORMALDEHYDE LIMITS<sup>1</sup></b> <b>(Maximum formaldehyde Emissions in Parts per Million)</b>		<b>PRODUCT</b>	<b>LIMIT</b>	Hardwood plywood veneer core	0.05	Hardwood plywood composite core	0.05	Particleboard	0.09	Medium density fiberboard	0.11	Thin medium density fiberboard <sup>2</sup>	0.13		
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<p>For 80% of floor area receiving resilient flooring shall meet the requirements per sec. 5.504.4.6.</p>																
<p>Documentation shall be provided to the City building inspector verifying that compliant finish materials have been used.</p>																
<p><b>Filters – 5.504.5.3.</b>  In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a MERV of 13. Recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.</p> <p><b>Exceptions:</b></p> <ol style="list-style-type: none"> <li>Existing mechanical equipment</li> </ol> <p><b>Labeling.</b>  Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.</p>																
<p><b>Environmental Tobacco Smoke (ETS) Control – 5.504.7.</b>  Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within buildings.</p>																
<p><b>Indoor Moisture Control - 5.505.1</b>  Buildings shall meet or exceed the provisions of California Building Code, CCR. Title 24. Part 2. Sections 1203 and Chapter 14.1.</p>																
<p><b>Outside Air Delivery – 5.506.1.</b>  For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 of the California Energy Code and Chapter 4 of CCRC, Title 8 or the applicable local code, whichever is more stringent.</p>																
<p><b>Carbon Dioxide (CO2) Monitoring – 5.506.2.</b>  For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with 2019 California Energy Code sec. 120.1(c)(4)</p>																

<b>ENVIRONMENTAL COMFORT</b>		
<b>Acoustical Control – 5.507.4</b> Employ building assemblies and components with Sound Transmission Class (STC) values using one of the following methods:		
<b>Prescriptive Method - Exterior Noise Transmission – 5.507.4.1</b> Wall and roof ceiling assemblies making up the building or addition envelope or altered envelope shall have a composite STC of min. 50, or a composite OITC rating of min. 40, with exterior windows of an STC of min. 40 or OITC of 30 in the following locations: <ol style="list-style-type: none"> <li>1. Within the 65 CNEL noise contour of an airport.</li> <li>2. Within the 65 CNEL or Ldn noise contour of a freeway, railroad, industrial source or fixed-guideway source.</li> </ol> Buildings exposed to a noise level of 65 dB Leq-1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies of at least 45 composite STC rating (or OITC 35), with exterior windows of a min. STC of 40 (or OITC 30).		
<b>Performance Method – 5.507.4.2</b> For buildings located as defined in sec. 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies making up the building or addition envelope or altered envelope shall be constructed to provide Leq-1Hr of 50 dBA in occupied areas during any hour of operation. An acoustical analysis documenting compliance shall be provided.		
<b>Interior Sound Transmission – 5.505.7.4.3</b> Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have a min. STC of 40.		
<b>OUTDOOR AIR QUALITY</b>		
<b>Ozone Depletion and Greenhouse Gas Reductions – 5.508.1</b> Installations of HVAC, refrigeration and fire suppression equipment shall not contain Chlorofluorocarbons (CFCs) and Halons.		
<b>Supermarket Refrigerant Leak Reduction – 5.508.2.</b> New commercial refrigeration systems (including both new facilities and the replacement of existing refrigeration systems in existing facilities) installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units and contain high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater, shall comply with the following:		
<b>Refrigerant Piping</b> Piping shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than ¼”, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted in sec. 5.508.2.1.1, 5.508.2.1.2, 5.508.2.1.3, 5.508.2.1.4.		
<b>Valves</b> Valves and fittings shall comply with the requirements in sec. 5.508.2.2.		
<b>Refrigerated Service Cases</b> Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, or be coated to prevent corrosion from these substances. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.		
<b>Refrigerant Receivers</b>		

Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.		
<b>Pressure Testing</b> The system shall be pressure tested during installation prior to evacuation and charging per sec. 5.508.2.5.		
<b>Evacuation</b> The system shall be evacuated after pressure testing and prior to charging per sec. 5.508.2.6.		
<b>INSTALLER AND SPECIAL INSPECTOR QUALIFICATIONS - 702</b>		
<b>702.1 Installer Training.</b> HVAC system installers are trained and certified in the proper installation of HVAC systems.		
<b>702.2 Special Inspection.</b> Special inspectors employed by the owner or owner's agent shall demonstrate competence for the particular type of inspection to be performed and shall have a certification from a recognized state, national or international association in the area closely related to the primary job function.		
<b>703.1 Documentation.</b> Verification of compliance with this code may include construction documents, plans specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency, which show substantial conformance.		
<b>REFERENCES</b>		
<i>Green Building Design</i> <a href="https://fremont.gov/2173/Green-Building">https://fremont.gov/2173/Green-Building</a> <i>2019 Green Building Standards Code, Part II</i> <a href="https://codes.iccsafe.org/content/CAGBSC2019/cover">https://codes.iccsafe.org/content/CAGBSC2019/cover</a> <i>Amendment to Green Building Code – See table 15 – 15.48 Fremont Green Building Standards Code</i> <a href="https://www.codepublishing.com/CA/Fremont/#!/Fremont15/Fremont1548.html#15.48">https://www.codepublishing.com/CA/Fremont/#!/Fremont15/Fremont1548.html#15.48</a>		



# CALGREEN SIGNATURE DECLARATIONS

## Section 1 – Design Verification

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

The owner and design professional responsible for compliance with CalGreen Standards have revised the plans and certify that the items checked above are hereby incorporated into the project plans and will be implemented into the project in accordance with the requirements set forth in the 2019 California Green Building Standards Code as adopted by the City of Fremont.

Owner’s Name (Printed)	Owner’s Signature	Date
Design Professional’s Name (Printed)	Design Professional’s Signature	Date
Name of License Professional responsible for Cal Green Compliance		Phone Number
Signature of License Professional responsible for Cal Green Compliance		Date
E-Mail Address for License Professional responsible for Cal Green Compliance		

## Section 2 – Implementation Verification (To be completed prior to Final Inspection)

Complete, sign and submit the completed checklist, including column 3, together with all original signatures on Section 2 to the Building Inspector at the Final Inspection.

I have inspected the work and have received sufficient documentation to verify and certify that the project identified above was constructed in accordance with this Green Building Checklist and in accordance with the requirements of the 2019 California Green Building Standards Code as adopted by the City of Fremont.

Name of License Professional responsible for Cal Green Compliance	Phone Number
Signature of License Professional responsible for Cal Green Compliance	Date
E-Mail Address for License Professional responsible for Cal Green Compliance	