

GREEN BUILDING PRESCRIPTIVE CHECKLIST

NEW AND ALTERATIONS TO NON-RESIDENTIAL BUILDINGS

These requirements apply to building permits submitted on or after January 1, 2023

The following is a standardized checklist of the 2022 California Green Building Standards Code (CALGreen) requirements that shall be required for all new and alterations of non-residential projects to comply with the CALGreen Mandatory Measures (chapter 5).

Note section 301.3 states, Nonresidential additions and alterations. [BSC-CG] The provisions of individual sections of Chapter 5 apply 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 (for occupancies within the authority of California Building Standards Commission). 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.

A waste management plan is applicable for all non-residential, new construction, additions and alterations regardless of the construction valuation.

Green Building Code Acknowledgment

Project Address: _____

Project Description: _____

Building Permit Number: _____

Section 1- Design Verification

The designer or design professional has reviewed the plans and certifies that the items checked below 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 Code.

Designer's Signature	Designer's Name (Please Print)	Date
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Design Professional's Signature	Design Professional's Name (Please Print)	Date
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Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
Planning and Design – Site Development				
Municipal Code Chapter 9.14	Storm-water Management and Discharge Control	The site shall be the minimum requirements for drainage per the city municipal code as outlined by the State Water Board		Initials: Date:
5.106.4	Bicycle Parking	For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1.		Initials: Date:
5.106.4.1	Bicycle Parking	[BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2;		Initials: Date:
5.106.4.1.1	Short Term bicycle parking	[BSC-CG] If the new project or 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 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Exception: Additions or alterations which add nine or fewer visitor vehicle parking spaces.		Initials Date:
5.106.4.1.2	Long Term bicycle parking	For 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 percent of tenant-occupied motorized vehicle parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet one of the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers. Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.		Initials: Date:
5.106.5.3	Electric vehicle (EV) charging	Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5. 106. 5. 3 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code. 5.106.5.3.1 EV Capable Spaces: EV capable spaces shall be		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		<p>provided in accordance with Table 5.106.5.3.1</p> <p>5.106.5.3.2 EV charging stations</p> <p>5.106.5.3.3 Use of Automatic Load Management Systems (ALMS)</p> <p>5.106.5.3.4 Accessible EVCS</p>		
5.106.5.4	Electric Vehicle (EV) charging: Medium-duty and Heavy-duty	<p>Construction shall comply with Section 5. 106. 5. 4. 1 to facilitate future installation of electric vehicle supply equipment(EVSE).</p> <p>5.106.5.4.1 Warehouses, grocery stores and retail stores with planned off street parking.</p> <p>5.106.5.4.1.1 Raceway and panel power requirements for medium and heavy-duty EVSE.</p>		
5.106.8	Light pollution reduction	<p>Outdoor lighting systems shall be designed and installed to comply with the following:</p> <ol style="list-style-type: none"> 1. The minimum requirements in the <i>California Energy Code</i> for Lighting Zones 0-4 as defined in Chapter 10, section 10-114 of the <i>California Administrative Code</i>; and 2. Backlight ratings as defined in IES TM-15-11 3. Uplight and Glare as defined in California Energy Code 		<p>Initials:</p> <p>Date:</p>
5.106.8	Light pollution reduction	<ol style="list-style-type: none"> 4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or Title 18 Zoning of PMC. <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Luminaires that qualify as exceptions in Section 130.2(b) and 140.7 of the <i>California Energy Code</i> 2. Emergency lighting 3. Building façade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6. 4. Custom lighting features as allowed by the City of Pleasanton, as permitted by section 101.8 Alternate materials, design and methods of construction. 5. Luminaires with less than 6,200 initial luminaire lumens. 		<p>Initials:</p> <p>Date:</p>
5.106.8.1	Facing-Backlight	<p>Luminaires within 2MH of a property shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in table 5.106.8 based on the lighting and distance to the nearest point of the property line.</p> <p>Exceptions: Corners. If two property lines (or two segments of</p>		

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		the same property line) have equidistant points to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest point(s) on the property lines to determine the required backlight rating.		
5.106.8.2	Facing-Glare	For luminaires covered by 5.106.8.1, if the property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front hemisphere. See notes if needed in 2022 CGEC.		
5.106.10	Grading and paving	Construction plans shall indicate how site grading or a <u>drainage system will manage all surface water flows</u> to keep water from entering buildings. Examples of methods to manage surface water include those shown in Items 1-5. See exception for additions or alterations.		Initials: Date:
5.106.12	Shade Trees	Shade trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with section 5.304.6.		Initials: Date:
5.106.12.1	Surface parking areas	Shade tree plantings, minimum #10 container size, shall be installed to provide shade over 50% of the parking area within 15 years. Exception: The surface parking area covered by solar photovoltaic shade structures, or shade structures, with roofing materials that comply with table A5.106.11.2.2 in appendix A5, are not included in the total area calculation.		Initials: Date:
5.106.12.2	Landscape areas	Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years. Exception: Playfields for organized sport activity are not included in the total area calculation.		Initials: Date:
5.106.12.3	Hardscape areas	Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20% of the hardscape area within 15 years. Exception: Walks, hardscape areas covered by solar photovoltaic shade structures, or shade structures.		Initials: Date:
Energy Efficiency Performance Requirements				

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
5.201.1	Scope	CGEC. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.		Initials: Date:
Water Efficiency and Conservation				
Indoor Water Use				
5.303.1	Meters	Separate meters shall be installed for the uses described in Sections 5.303.1.1 through 5.303.1.2.		Initials: Date:
5.303.1.1	New buildings or additions in excess of 50,000 square feet	Separate submeters shall be installed as follows: 1. 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. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:		Initials: Date:

5.303.1.1	New buildings or additions in excess of 50,000 square feet	a. Makeup water for cooling towers where flow through is greater than 500 gpm (30/L/s). b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s). c. Steam and hot-water boilers with energy input more than 500,000 Btu/h (147 kW).		Initials: Date:
5.303.1.2	Excess consumption	A separate submeter or metering device shall be provided for any tenant within a new building or an addition that is projected to consume more than 1,000 gal/day (3800 L/day).		Initials: Date:
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:		Initials: Date:
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. 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.		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
5.303.3.2	Urinals			
5.303.3.2.1	Wall-mounted urinals	The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush.		Initials: Date:
5.303.3.2.2	Floor mounted urinals	The effective flush volume of floor mounted urinals shall not exceed 0.5 gallons per flush.		Initials: Date:
5.303.3.3	Showerheads			
5.303.3.3.1	Single showerhead	Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for showerheads.		Initials: Date:
5.303.3.3.2	Multiple showerheads serving one shower	When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead.		Initials: Date:
5.303.3.4.1	Nonresidential lavatory faucets	Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.		Initials: Date:
5.303.3.4.2	Kitchen Faucets	Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 PSI. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 PSI, and must default to a maximum of 1.8 gallons per minute at 60 PSI		Initials: Date:
5.303.3.4.3	Wash fountains	Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].		Initials: Date:
5.303.3.4.4	Metering faucets	Metering faucets shall not deliver more than 0.20 gallons per cycle.		Initials: Date:
5.303.3.4.5	Metering faucets for wash fountains	Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 psi].		Initials: Date:
5.303.4	Commercial kitchen equipment			Initials: Date
5.303.4.1	Food waste disposers	Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water. Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
5.303.6	Standards for plumbing fixtures and fittings	Plumbing fixtures and fittings shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable standards referenced in Table 1701.1 of the <i>California Plumbing Code</i> and in Chapter 6 of this code.		Initials: Date:
Outdoor Water Use				
5.304.1 PMC 18.20.030 14.20	Outdoor potable water use in landscape areas	Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficiency Landscape Ordinance (MWELo), whichever is more stringent. Notes: 1)The 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. 2)MWELo and supporting documents, including a water budget calculator, are available at https://www.water.ca.gov/ .		Initials: Date:
5.304.6	Outdoor potable water use in landscape areas	For public schools and community colleges, landscape projects as described in sections 5.304.6.1 and 5.304.6.2 shall comply with the 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 evaporation adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35 Exception: 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.		
5.304.6.1	Newly constructed landscapes	New construction projects with an aggregate landscape area equal to or greater than 500 square feet.		
5.304.6.2	Rehabilitated landscapes	Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.		
5.407.1	Weather protection	Provide a weather-resistant exterior wall and foundation envelope as required by <i>California Building Code</i> , Section 1402.2 and <i>California Energy Code</i> , Section 150, manufacturer's installation instructions or local ordinance, whichever is more stringent. ³		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
5.407.2	Moisture control	Employ moisture control measures by the following methods;		Initials: Date:
5.407.2.1	Sprinklers	Design and maintain landscape irrigation systems to prevent irrigation spray on structures.		Initials: Date:
5.407.2.2	Entries and openings	Design exterior entries and openings to prevent water intrusion into buildings as follows.		Initials: Date:
5.407.2.2.1	Exterior door protection	Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following: 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth. 3. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection.		Initials: Date:
5.407.2.2.2	Flashing	Install flashings integrated with a drainage plane		Initials: Date:
Chapter 9.21 City Municipal Code Construction and Demolition Debris				
9.21.020	Regulated projects	A) Each applicant for a regulated project shall comply with the diversion requirements of PMC 9.21. Compliance with this chapter shall be a condition of approval for any building or demolition permit issued for a regulated project. The failure to impose this condition for any building or demolition permit shall not relieve the applicant from complying with this chapter. B. Each applicant for a project that is not a regulated project is encouraged to achieve an overall diversion rate of at least 75 percent. (Be advised C&D debris taken to Pleasanton Garbage Service will currently only result in a 72% diversion rate. Separation of materials will be required to achieve a minimum 75% diversion rate.) (Ord. 2120 § 1, 2015; Ord. 1992 § 1, 2009).		Initials: Date:
9.21.030	Waste management plan	A. WMP Application. Each applicant of a regulated project shall submit an electronic WMP application through the city's designated online waste management and tracking system prior to beginning any project that requires a building, demolition, or similar construction permit. The completed WMP application shall include all of the following: 1. The address or location, building permit number(s) and description of the project; 2. Project information, such as the job valuation, area of work, permit number,		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		tract information (if known), project diversion rate and relevant personnel involved with this WMP; 3. The estimated quantities of all materials to be salvaged, recycled and/or disposed; 4. The hauling and disposal method; 5. The facility or facilities being utilized for salvage, recycling or disposal of construction or demolition materials; 6. The applicant shall certify their acknowledgement of, and agreement to comply with both the city's franchise collector requirements and hauling and self-hauling regulations. (Ord. 2120 § 1, 2015; Ord. 1992 § 1, 2009).		
5.410.1.1	Additions	All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30 percent or more in floor area, shall provide recycling areas on site. Exception: Additions within a tenant space resulting in less than a 30-percent increase in the tenant space floor area.		Initials: Date:
5.410.2	Commissioning	For new buildings 10,000 square feet and over, building commissioning for all building systems covered by Title 24, Part 6, process systems and renewable energy systems shall be included in the design and construction processes of the building project. All occupancies other than I-occupancies and L-occupancies shall comply with the California Energy Code as prescribed in California Energy Code Section 120.8. For I-occupancies which are not regulated by OSHPD or for I-occupancies and L-occupancies which are not regulated by the California Energy Code Section 100.0 Scope; all requirements in sections 5.410.2 through 5.410.2.6 shall apply. Commissioning requirements shall include items listed in Section 5.410.2. Commissioning requirements shall include items listed in Section 5.410.2 Exceptions: 1. Unconditional warehouses of any size. 2. Areas under 10,000 feet used for offices or other conditioned accessory spaces within unconditioned warehouses 3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. 4. Open parking garages of any size, or		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		open parking garage areas of any size, within a structure.		
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 Section 5.410.2.1		Initials: Date:
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 Section 5.410.2.2.		Initials: Date:
5.410.2.3	Commissioning Plan	A commissioning plan describing how the project will be commissioned shall include items listed in Section 5.410.2.3.		Initials: Date:
5.410.2.4	Functional Performance Testing	Functional performance testing shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications.		Initials: Date:
5.410.2.5	Documentation and training	A systems manual and systems operations training are required.		Initials Date:
5.410.2.5.1	Systems Manual	The systems manual shall be delivered to the building owner or representative and facilities operator and shall include the items listed in Section 5.410.2.5.1.		Initials: Date:
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 Section 5.410.2.5.2.		Initials: Date:
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 representative.		Initials: Date:
5.410.4	Testing and adjusting	Testing and adjusting of systems shall be required for buildings less than 10,000 square feet. Applies to new systems serving additions or alterations.		Initials: Date:
5.410.4.2	Systems	Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include, as applicable to the project, the systems listed in Section 5.410.4.2.		Initials: Date:
5.410.4.3	Procedures	Perform testing and adjusting procedures in accordance with applicable standards on each system as determined by the enforcing agency.		Initials: Date:
5.410.4.3.1	HVAC Balancing	Before a new space-conditioning system serving a building or space is operated for normal use, balance in accordance with the procedures defined by national standards listed in Section 5.410.4.3.1 or as approved by the enforcing agency.		Initials: Date:
5.410.4.4	Reporting	After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual		Initials: Date

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		responsible for performing these services.		
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.		Initials: Date:
5.410.4.5.1	Inspections and reports	Include a copy of all inspection verifications and reports required by the enforcing agency.		Initials: Date:
Environmental Quality				
Fireplaces				
5.503.1		Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace or a sealed woodstove and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellets stoves and fireplaces shall comply with local ordinances.		Initials: Date:
5.503.1.1	Woodstoves	Woodstoves and pellet stoves shall comply with US EPA New Source Performance Standards (NSPS) emission limits, where applicable, and shall have a permanent label indicating they are certified to meet the emission limits.		Initials: Date:
Pollutant Control				
5.504.1	Temporary ventilation	If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy. Applies to additions or alterations.		Initials: Date:
5.504.3	Covering of duct openings	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, Sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.		Initials: Date:
5.504.4	Finish material pollutant control	Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6		Initials: Date:
5.504.4.1	Adhesives, sealants, caulks	Adhesives and sealants used on the project shall meet the requirements of the following standards. 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		<p>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 <i>California Code of Regulations</i>, Title 17, commencing with Section 94507.</p>		
5.504.3	Paints and coatings	Architectural paints and coatings shall comply with Table 5.504.4.3.		Initials: Date:
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.).		Initials: Date:
5.504.4.3.2	Verification	Verification of compliance with this section shall be provided at the request of the enforcing agency.		Initials: Date:
5.504.4.4.4	Carpet systems	All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.		Initials: Date:
5.504.4.4.4.1	Carpet cushion	All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.		Initials: Date:
5.504.4.4.2	Carpet adhesive	All carpet adhesive shall meet the requirements of Table 5.504.4.1.		Initials: Date:
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.		Initials: Date:
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:		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		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-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.		
5.504.4.6	Resilient flooring systems	For 80 percent of floor area receiving resilient flooring, install resilient flooring which meets one of the following: 1.Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program. 2.Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010; 3.Compliant with the Collaborative for High Performance Schools California (CA- CHPS) Criteria and listed in the CHPS High Performance Product Database; or 4. Products certified under UL GREENGUARD Gold (formerly Greenguard Children's & Schools Program).		Initials: Date:
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 13. MERV 13 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: 1. Existing mechanical equipment.		Initials: Date:
Indoor Moisture and Radon Control				
5.505.1	Indoor moisture control	Buildings shall meet or exceed the provisions of <i>California Building Code</i> , CCR, Title 24, Part 2, Sections 1203 and Chapter 14.1. ³		Initials: Date:
Air Quality and Exhaust				
5.506.1	Outside air delivery	For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 of the		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		California Energy Code and Chapter 4 of CCR, Title 8.		
5.506.2	Carbon dioxide monitoring	For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, CCR, Sec. 120(c)(4).		
5.506.3	Carbon dioxide monitoring in classrooms	<p>Each K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:</p> <ol style="list-style-type: none"> 1) The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914mm and 1829mm) above the floor and at least 5 feet (1524mm) away from doors and operable windows. 2. When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an ECMS, the carbon dioxide readings shall be available to and regularly monitored by the facility personnel. 3. A monitor shall provide notification through a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1.100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1.100ppm. 4. The monitor or sensor shall measure carbon dioxide levels at minimum 15-minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration. 5. The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000 ppm or greater. 6. The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more than 		<p>Initials:</p> <p>Date:</p>

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
		once every 5 years.		
Environmental Comfort				
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 or 5.507.4.2.		Initials: Date:
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 location described in items 1 and 2. Also applies to addition envelop or altered envelope.		Initials: Date:
5.507.4.1.1	Noise exposure where noise contours are no 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 rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). Also applies to addition or alteration exterior wall.		Initials: Date:
5.507.4.2	Performance Method	For buildings located as defined in Sections A5.507.4.1 or A5.507.4.1.1, 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} -1 HR) of 50 dBA in occupied areas during any hour of operation. Also applies to addition envelope or altered envelope. Site features. Exterior features such as sound walls or earth berms may utilized as appropriate to the project to mitigate sound migration to the interior. Also applies to addition envelope or altered envelope.		Initials: Date:
5.507.4.3	Interior sound transmission	Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.		Initials: Date:
Outdoor Air Quality				
5.508.1	Ozone depletion and global warming reductions	Installation of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.		Initials: Date:
5.508.1.1	CFCs	Install HVAC and refrigeration equipment that does not contain CFCs.		Initials: Date:

Reference	Description	Comments	Designer's Comments with Plan Detail Reference	City Use Only Field Inspection Verification
5.508.1.2	Halons	Install fire suppression equipment that does not contain Halons.		Initials: Date:
5.508.2	Supermarket refrigerant leak reduction	<p>New commercial refrigeration systems shall comply with the provisions of this section when 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. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.</p> <p>Exceptions: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with GWP value less than 150 are not subject to this section. Low-GWP refrigerants are non-ozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.</p>		Initials: Date:

TABLE 5.106.5.3.1

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE) ²
0-9	0	0
10-25	4	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 and over	20 percent of total ¹	25 percent of EV capable spaces ¹

1. Calculation for spaces shall be rounded up to the nearest whole number.
2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.

Table 5.106.8

MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS^{1,2}

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
Maximum Allowable Backlight Rating (B)					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1 — 2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5 — 1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
Maximum Allowable Uplight Rating (U)					
For area lighting ³	N/A	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	N/A	U1	U2	U3	U4
Maximum Allowable Glare Rating (G)					
Luminaire greater than 2 MH from property line	N/A	G1	G2	G3	G4

Luminaire front hemisphere is 1 — 2 MH from property line	N/A	G0	G1	G1	G2
Luminaire front hemisphere is 0.5 — 1 MH from property line	N/A	G0	G0	G1	G1
Luminaire front hemisphere is less than 0.5 MH from property line	N/A	G0	G0	G0	G1

1. [IESNA](#) Lighting Zones 0 are not applicable; refer to Lighting Zones as defined in the [California Energy Code](#) and [Chapter 10](#) of the [California Administrative Code](#).
2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.
3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting."

TABLE A5.303.2.2 WATER USE BASELINE₃

FIXTURE TYPE	BASELINE FLOW RATE	DURATION	DAILY USES	OCCUPANTS ₂
Showerheads	2.0 gpm @ 80 psi	5 min.	1	X _{2a}
Lavatory faucets nonresidential	0.5 gpm @ 60 psi	.25 min.	3	X
Kitchen faucets	1.8 gpm @ 60 psi	4 min.	1	X _{2b}
Replacement aerators	2 gpm @ 60 psi			X
Wash fountains	1.8 gpm/20 [rim space (in.) @ 60 psi]			X
Metering faucets	0.20 gallons/cycle	.25 min.	3	X
Metering faucets for wash fountains	0.20 gallons/cycle/20 [rim space (in.) @ 60 psi]	.25 min.	1 male ₁ 3 female	X
Gravity tank type water closets	1.28 gallons/flush	1 flush	1 male ₁ 3 female	X
Flushometer tank water closets	1.28 gallons/flush	1 flush	1 male ₁ 3 female	X
Flushometer valve water closets	1.28 gallons/flush	1 flush	1 male ₁ 3 female	X
Electromechanical hydraulic water closets	1.28 gallons/flush	1 flush	1 male ₁ 3 female	X
Urinals	0.5 or 0.125 ₄ gallons/flush	1 flush	2 male	X

1. The daily use number shall be increased to three if urinals are not installed in the room. 2. Refer to Table A, Chapter 4, 2019 *California Plumbing Code*, for occupant load factors. a. Shower use by occupants depends on the type of use of a building or portion of a building, e.g., total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users. b. Kitchen faucet use is determined by the occupant load of the area served by the fixture. 3. Use worksheet WS-1 to calculate baseline water use. 4. Floor-mounted urinals @ 0.5 GPF or wall-mounted urinals @ 0.125 GPF.

**TABLE 5.504.4.1
ADHESIVE VOC LIMIT^{1,2}
Less Water and Less Exempt Compounds in Grams Per Liter**

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
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 adhesive not specifically listed	50
SPECIALTY APPLICATIONS	
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
SUBSTRATE SPECIFIC APPLICATIONS	
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 the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168, <http://www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF>.

**TABLE 5.504.4.2
SEALANT VOC LIMIT
Less Water and Less Exempt Compounds in Grams per Liter**

SEALANTS	CURRENT VOC LIMIT
Architectural	250
Marine deck	760
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
SEALANT PRIMERS	
Architectural Nonporous	250
Architectural Porous	775
Modified bituminous	500
Marine deck	760
Other	750

Note: For additional information regarding methods to measure the VOC content specified in these tables, see South Coast Air Quality Management District Rule 1168.

**TABLE 5.504.4.3
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS^{2,3}
Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds**

COATING CATEGORY	CURRENT LIMIT
Flat coatings	50
Nonflat coatings	100
Nonflat high gloss coatings	150
Specialty Coatings	
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 ¹	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
Shellacs: 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

1. Grams of VOC per liter of coating, including water and including exempt compounds.
2. The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.
3. Values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure, February 1, 2008. More information is available from the Air Resources Board.

TABLE 5.504.4.5
FORMALDEHYDE LIMITS¹
Maximum Formaldehyde Emissions in Parts per Million

PRODUCT	CURRENT LIMIT
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	0.09
Medium density fiberboard	0.11
Thin medium density fiberboard ²	0.13

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 E1333. For additional information, see *California Code of Regulations*, Title 17, Sections 93120 through 93120.12.

2. Thin medium density fiberboard has a maximum thickness of $\frac{5}{16}$ inch (8 mm).