



NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.1 – PLANNING AND DESIGN (Site Development)			
5.106.1	Storm Water Pollution Prevention Plan	For newly constructed projects of less than one acre, develop a Storm Water Pollution Prevention Plan (SWPPP) that has been designed, specific to its site, conforming to the State Storm water NPDES Construction Permit or local ordinance, whichever is stricter, as is required for projects one acre or more. The plan should cover prevention of soil loss by storm water run-off and/or wind erosion, of sedimentation, and/or of dust/particulate matter air pollution.	
5.106.4	Bicycle Parking and Changing Rooms	Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance or the University of California Policy on Sustainable Practices, whichever is stricter. 5.106.4.1 Short-Term bicycle parking. 5.106.4.2 Long-Term bicycle parking.	
5.106.5.2	Designated Parking	Provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles per Table 5.106.5.2.	
5.106.8	Light Pollution Reduction	Comply with lighting power requirements in the California Energy Code, CCR, Part 6, and design interior and exterior lighting such that zero direct-beam illumination leaves the building site. Meet or exceed exterior light levels and uniformity ratios for lighting zones 1-4 as defined in Chapter 10 of the California Administrative Code, CCR, Part 1, using the following strategies: 1. Shield all exterior luminaires or provide cutoff luminaires per Section 132 (b) of the California Energy Code. 2. Contain interior lighting within each source. 3. Allow no more than .01 horizontal lumen footcandles to escape 15 feet beyond the site boundary. 4. Automatically control exterior lighting dusk to dawn to turn off or lower light levels during inactive periods. Exceptions: 1. Part 2, Chapter 12, Section 1205.6 for campus lighting requirements for parking facilities and walkways. 2. Emergency lighting and lighting required for nighttime security.	
5.106.10	Grading and Paving	The site shall be planned and developed to keep surface water from entering buildings. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows.	
Division 5.2 – ENERGY EFFICIENCY			
5.201.1	Scope	For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards. Note: It is the intent of this code to encourage buildings to achieve exemplary performance in the area of energy efficiency. For the purposes of energy efficiency standards, the California Energy Commission believes specifically, a green building should achieve at least a 15% reduction in energy usage when compared to the State's mandatory energy efficiency standards.	
Division 5.3 – WATER EFFICIENCY AND CONSERVATION (Indoor Water Use)			
5.303.1	Meters	Separate meters or metering device shall be installed for the uses described in Sections 503.1.1 and 503.1.2.	
5.303.1.1	Buildings 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. 2. For spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop projected to consume more than 100 gal/day.	
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.	
5.303.2	Twenty percent savings	A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20% shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code. The 20% reduction in potable water use shall be demonstrated by one of the following methods. 1. Each plumbing fixture and fitting shall meet the 20% reduced flow rate specified in Table 5.303.2.3, or 2. A calculation demonstrating a 20% reduction in the building "water use baseline" as established in Table 5.303.2.2 shall be provided.	



NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST (continued)

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.3 – WATER EFFICIENCY AND CONSERVATION (Indoor Water Use)			
5.303.2.1	Multiple showerheads serving one shower	When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads shall not exceed the maximum flow rates specified in the 20% reduction column contained in Table 5.303.2.2 or the shower shall be designed to only allow one showerhead to be in operation at a time.	
5.303.4	Wastewater reduction	Each building shall reduce by 20% wastewater by one of the following methods: 1. [DSA-SS] The installation of water-conserving fixtures (water closets, urinals) meeting the criteria established in sections 5.303.2 or 5.303.3 or 2. Utilizing non-potable water systems [captured rainwater, graywater, and municipally treated wastewater (recycled water) complying with the current edition of the California Plumbing Code or other methods described in Section A5.304].	
5.303.6	Plumbing fixtures and fittings	Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall meet the standards referenced in Table 5.503.6.	
Division 5.3 – WATER EFFICIENCY AND CONSERVATION (Outdoor Water Use)			
5.304.1	Water budget	A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable. Note: Prescriptive measures to assist in compliance with the water budget are listed in Sections 492.5 through 492.8, 492.10 and 492.11 of the ordinance, which may be found at: http://www.owue.water.ca.gov/landscape/ord/ord.cfm	
5.304.2	Outdoor potable use	For new water service for landscaped areas between 1000 square feet and 5000 square feet (the level at which Water Code §535 applies), separate meters or submeters shall be installed for indoor and outdoor potable water use.	
5.304.3	Irrigation design	In new nonresidential construction with between 1000 and 2500 square feet of landscaped area (the level at which the MLO applies), install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.	
5.304.3.1	Irrigation controllers	Automatic irrigation system controllers installed at the time of final inspection shall comply with the following: 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. Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association at: http://www.irrigation.org/SWAT/Industry/ia-tested.asp	
Division 5.4 - MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Water Resistance and Moisture Management)			
5.407.1	Weather protection	Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 (Weather Protection) and California Energy Code Section 150, (Mandatory Features and Devices), manufacturer's installation instructions, or local ordinance, whichever is more stringent.	
5.407.2	Moisture control	Employ moisture control measures by the following methods. 5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures. 5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings. Notes: 1. Use features such as overhangs and recesses, and flashings integrated with a drainage plane. 2. Use non-absorbent floor and wall finishes within at least two feet around and perpendicular to such openings.	
Division 5.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Construction Waste Reduction, Disposal & Recycling)			
5.408.1	Construction Waste diversion	Establish a construction waste management plan for the diverted materials, or meet local construction and demolition waste management ordinance, whichever is more stringent.	

NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST (continued)

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Construction Waste Reduction, Disposal & Recycling)			
5.408.2	Construction waste management plan	Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan for approval by the enforcement agency that: <ol style="list-style-type: none"> 1. Identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale. 2. Determines if materials will be sorted on-site or mixed. 3. Identifies diversion facilities where material collected will be taken. 4. Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both. 	
5.408.2.1	Documentation	Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 5.408.2 items 1 thru 4. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency. Exception [DSA-SS]: Jobsites in areas where there is no mixed construction and demolition debris (C&D) processor or recycling facilities within a feasible haul distance shall meet the requirements as follows: <ol style="list-style-type: none"> 1. The enforcement agency having jurisdiction shall at its discretion, enforce the waste management plan and make exceptions as deemed necessary. 	
5.408.2.2	Isolated jobsites	The enforcing agency may make exceptions to the requirements of this section when jobsites are located in areas beyond the haul boundaries of the diversion facility. Notes: <ol style="list-style-type: none"> 1. Sample forms found in Chapter 8 may be used to assist in documenting compliance with the waste management plan. 2. Mixed construction and demolition debris (C&D) processors can be located at http://www.ciwmb.ca.gov/ConDemo/. 	
5.408.3	Construction waste reduction of at least 50 percent	Recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction and demolition debris, or meet a local construction and demolition waste management ordinance, whichever is more stringent. Calculate the amount of materials diverted by weight or volume, but not by both. Exceptions: <ol style="list-style-type: none"> 1. Excavated soil and land-clearing debris 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 	
5.408.4	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. For a phased project, such material may be stockpiled on site until the storage site is developed.	
Division 5.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Building Maintenance and Operation)			
5.410.1	Recycling by occupants	Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics and metals.	
5.410.1.1	Sample ordinance	Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act). Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the California Integrated Waste Management's web site at: http://www.ciwmb.ca.gov/Publications/LocalAsst/31000012.doc .	
5.410.2	Commissioning	For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. Commissioning requirements shall include: <ol style="list-style-type: none"> 1. Owner's Project Requirements. 2. Basis of Design. 3. Commissioning measures shown in the construction documents. 4. Commissioning Plan. 5. Functional Performance Testing. 6. Documentation & Training. 7. Commissioning Report. All building systems and components covered by Title 24, Part 6, as well as process equipment and controls, and renewable energy systems shall be included in the scope of the Commissioning Requirements.	

NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST (continued)

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Building Maintenance and Operation)			
5.410.2.1	Owner's or Owner representative's Project Requirements (OPR)	<p>The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:</p> <ol style="list-style-type: none"> 1. Environmental and Sustainability Goals. 2. Energy Efficiency Goals. 3. Indoor Environmental Quality Requirements. 4. Project program, including facility functions and hours of operation, and need for after hours operation. 5. Equipment and Systems Expectations. 6. Building Occupant and O&M Personnel Expectations. 	
5.410.2.2	Basis of Design (BOD)	<p>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, and updated as necessary during the design and construction phases. The Basis of Design document shall cover the following systems:</p> <ol style="list-style-type: none"> 1. Heating, Ventilation, Air Conditioning (HVAC) Systems and Controls. 2. Indoor Lighting System and Controls. 3. Water Heating System. 4. Renewable Energy Systems. 5. Landscape Irrigation Systems. 6. Water Reuse Systems. 	
5.410.2.3	Commissioning plan	<p>Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned and shall be started during the design phase of the building project. The Commissioning Plan shall include the following:</p> <ol style="list-style-type: none"> 1. General Project Information. 2. Commissioning Goals. 3. Systems to be commissioned. Plans to test systems and components shall include: <ol style="list-style-type: none"> a. An explanation of the original design intent, b. Equipment and systems to be tested, including the extent of tests, c. Functions to be tested, d. Conditions under which the test shall be performed, e. Measurable criteria for acceptable performance. 4. Commissioning Team Information. 5. Commissioning Process Activities, Schedules & Responsibilities – plans for the completion of Commissioning Requirements listed in A5.410.4.4 through A5.410.4.6 shall be included. 	
5.410.2.4	Functional performance testing	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. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.	
5.410.2.5	Documentation and training	A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in California Code of Regulations (CCR), Title 8, Section 5142, and other related regulations.	
5.410.2.5.1	Systems manual	<p>Documentation of the operational aspects of the building shall be completed within the Systems Manual and delivered to the building owner or representative and facilities operator. The Systems Manual shall include the following:</p> <ol style="list-style-type: none"> 1. Site Information, including facility description, history and current requirements. 2. Site Contact Information. 3. Basic Operations & Maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log 4. Major Systems. 5. Site Equipment Inventory and Maintenance Notes. 6. A copy of all special inspection verifications required by the enforcing agency or this code. 7. Other Resources & Documentation. 	
5.410.2.5.2	Systems operations training	<p>The training of the appropriate maintenance staff for each equipment type and/or system shall be documented in the commissioning report and shall include the following:</p> <ol style="list-style-type: none"> 1. System/Equipment overview (what it is, what it does and what other systems and/or equipment it interfaces with). 2. Review and demonstration of servicing/preventive maintenance. 3. Review of the information in the Systems Manual. 4. Review of the record drawings on the system/equipment. 	
5.410.2.6	Commissioning report	A complete report of commissioning process activities undertaken through the design, construction and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or representative.	

NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST (continued)

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (Building Maintenance and Operation)			
5.410.4	Testing and adjustment	Testing and adjusting of systems shall be required for buildings less than 10,000 square feet.	
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 at a minimum, as applicable to the project: 1. HVAC systems and controls 2. Indoor and outdoor lighting and controls 3. Water heating systems 4. Renewable energy systems 5. Landscape Irrigation Systems 6. Water Reuse Systems.	
5.410.4.3	Procedures	Perform testing and adjusting procedures in accordance with industry best practices and applicable standards on each system as determined by the building official.	
5.410.4.3.1	HVAC balancing	In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; or Associated Air Balance Council National Standards or as approved by the building official.	
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.	
5.410.4.5	Operation and maintenance (O & M) manual	Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.	
5.410.4.5.1	Inspection and reports	Include a copy of all inspection verifications and reports required by the enforcing agency.	
Division 5.5 – ENVIRONMENTAL QUALITY (Fireplaces)			
5.503.1	General	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 the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.	
5.503.1.1	Woodstoves	Woodstoves and pellet stoves shall comply with US EPA Phase II emission limits.	
Division 5.5 – ENVIRONMENTAL QUALITY (Pollutant Control)			
5.504.3	Covering of duct openings and protection of mechanical equipment during construction	At the time of rough installation, or during storage on the construction site and until final startup of the heating and cooling 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 or debris which may collect in the system.	
5.504.4	Finish material pollutant control	Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.	
5.504.4.1	Adhesives, sealants and caulks	Adhesives, sealants, and caulks 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 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. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene, and trichloroethylene), except for aerosol products as specified in subsection 2, below. 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. Note: Title 17 may be found at http://ccr.oal.ca.gov/ .	

NON-RESIDENTIAL MANDATORY MEASURES CHECKLIST (continued)

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.5 – ENVIRONMENTAL QUALITY (Pollutant Control)			
5.504.4.3	Paints and coatings	Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3, shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat, or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.	
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, in sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.	
5.504.4.3.2	Verification	Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following: 1. Manufacturers product specification. 2. Field verification of on-site product containers.	
5.504.4.4	Carpet systems	All carpet installed in the building interior shall meet the testing and product requirements of one of the following: 1. Carpet and Rug Institute's Green Label Plus Program 2. California Department of Public Health Standard Practice for the testing of OCs (Specification 01350) 3. NSF/ANSI 140 at the Gold level 4. Scientific Certifications Systems Sustainable Choice	
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.	
5.504.4.4.2	Carpet adhesive	All carpet adhesive shall meet the requirements of Table 5.504.4.1.	
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 ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 5.504.4.5	
5.504.4.5.2	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. 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Other methods acceptable to the enforcing agency.	
5.504.4.6	Resilient flooring systems	For 50% of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High performance Schools (CHPS) criteria and listed on its Low-emitting Materials List (or Product Registry) or certified under the Resilient Floor Covering Institute (RFCI) FloorScore program.	
5.504.4.6.1	Verification of compliance	Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits. Notes: 1. CHPS Low-emitting Materials List may be found at www.chpsregistry.com/live or http://www.chps.net/dev/Drupal/node/381 . 2. Products certified under the FloorScore program may be found at: http://www.rfci.com/int_FS-ProdCert.htm 3. Products certified under the Greenguard Children & Schools program and compliant with CHPS criteria may be found at: http://www.greenguard.org/Default.aspx?tabid=135 .	
5.504.5.3	Filters	In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 8.	
5.504.7	Environmental tobacco smoke (ETSA) control	Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and in buildings; or as enforced by ordinances, regulations, or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations, or policies are not in place, post signage to inform building occupants of the prohibitions.	

SECTION	CREDIT	REQUIREMENTS	Measures provided on plan sheet:
Division 5.5 – ENVIRONMENTAL QUALITY (Indoor Moisture Control)			
5.505.1	Indoor moisture control	Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of this code.	
Division 5.5 – ENVIRONMENTAL QUALITY (Indoor Air Quality)			
5.506.1	Outside air delivery	For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 121 (Requirements For Ventilation) of the California Energy Code, CCR, Title 24, Part 6, or the applicable local code, whichever is more stringent, and Chapter 4 of CCR, Title 8.	
5.506.2	Carbon dioxide (CO ₂) monitoring	For buildings equipped with demand control ventilation, CO ₂ sensors and ventilation controls shall be specified and installed in accordance with the requirements of the current edition of the California Energy Code, CCR, Title 24, Part 6, Section 121(c).	
Division 5.5 – ENVIRONMENTAL QUALITY (Environmental Comfort)			
5.507.4	Acoustical control	Employ building assemblies and components with Sound Transmission coefficient (STC) values determined in accordance with ASTM E90 and ASTM E413.	
5.507.4.1	Exterior noise transmission	Wall and roof-ceiling assemblies making up the building envelope shall have an STC of at least 50, and exterior windows shall have a minimum STC of 30 for any of the following building locations: 1. Within 1000 ft. (300 m.) of right of ways of freeways. 2. Within 5 mi. (8 km.) of airports serving more than 10,000 commercial jets per year. 3. Where sound levels at the property line regularly exceed 65 decibels, other than occasional sound due to church bells, train horns, emergency vehicles and public warning systems. Exception: Buildings with few or no occupants and where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures, and utility buildings.	
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. Note: Examples of assemblies and their various STC ratings may be found at: http://www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf .	
Division 5.5 – ENVIRONMENTAL QUALITY (Outdoor Air Quality)			
5.508.1	Ozone depletion and greenhouse gas reductions	Installations of HVAC, refrigeration, and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2. 5.508.1.1 Chlorofluorocarbons (CFCs.) Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs. 5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.	



For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by **trained personnel** with experience on projects of comparable size and complexity.

Building Commissioning is a systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated, and maintained to meet the owner's project requirements.

