



PROJECT SUBMITTAL GUIDELINE: CALGREEN CODE

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA <u>Forms</u> or <u>Publications</u> webpages.

Projects submitted to DSA for review, as a single project or as increments, must comply with the Title 24, Part 11, California Green Building Standards Code (CALGreen).

DSA-SS CALGreen regulatory requirements consists of compliance with the scoping requirements in CALGreen Chapter 3, Section 301.4 and the Nonresidential Mandatory Measures adopted by DSA-SS in Chapter 5. Please refer to the Chapter 5 Matrix Adoption Tables for each Division for the specific Mandatory Measures adopted by DSA-SS.

The measures outlined in CALGreen Chapter 5, Section 5.410.2 for building and site Commissioning and Section 5.410.4 for building and site Testing and Adjusting are *not* mandatory requirements for schools and community colleges; however, portions of these regulations are required by the California Energy Code with which all facilities must comply. For mandatory Commissioning requirements under the California Energy Code, including installation and acceptance testing requirements, refer to Energy Code Section 120.8. Although not adopted by DSA-SS, the additional design measures for Commissioning in CALGreen Section 5.410.2 and the verification measures for Testing and Adjusting under CALGreen Section 5.410.4 are encouraged and recommended.

CALGreen Section 306 Voluntary Measures encourages building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment, and promote a more sustainable design. Chapter 5 Nonresidential Mandatory Measures that are not adopted as mandatory measures by DSA-SS are voluntary measures recommended and encouraged for the design, construction, verification, and maintenance of non-energy systems. Appendix A5, Divisions A5.1 through A5.5 outline means of achieving enhanced sustainable design and construction by incorporating voluntary measures that exceed the mandatory measures.

Attachment 1 lists the CALGreen Nonresidential Mandatory Measures adopted by DSA-SS. For the complete text, consult the 2019 Title 24, Part 11, California Green Building Standards Code. For Project Submission, check the CALGreen Mandatory Measures that are applicable to and have been incorporated into the Project and submit this Guideline (checklist) with the application.

Attachment 1

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

Division of the State Architect – Structural Safety (DSA-SS) (CCR, Title 24, Part 11)

CHAPTER 3 – GREEN BUILDING SECTION 301 – GENERAL

- **301.4 Mandatory measures for public schools and community colleges. [DSA-SS]** New building construction and site work on a new or existing site shall comply with Section 301.4.
 - **301.4.1** Building and site construction on a new site shall comply with Chapter 5 as adopted by DSA-SS.
 - **301.4.2** Work on an existing site shall comply with Section 301.4.2.
 - **301.4.2.1** Newly constructed site work shall comply with Chapter 5 as adopted by DSA-SS.
 - **301.4.2.2** Newly constructed buildings shall comply with Chapter 5 as adopted by DSA-SS and Section 301.4.3.
 - **301.4.2.3** Additions to existing buildings shall comply with Section 301.4.3.
 - **301.4.2.4** Rehabilitated landscape areas shall comply with Sections 5.304.6 and 5.106.12.
 - **301.4.3 Minimum rehabilitated landscape area requirement.** A minimum rehabilitated landscape area equal to 75 percent of the footprint area of the building shall comply with Section 5.304.6 and Section 106.12. New buildings or additions to existing buildings less than 1,600 square feet shall not be required to comply with Section 301.4.3.

CHAPTER 5 – NONRESIDENTIAL MANDATORY MEASURES DIVISION 5.1 – PLANNING AND DESIGN

SECTION 5.106 – SITE DEVELOPMENT

| 5.106.4.2 Bicycle parking. [DSA-SS] | For public schools and | community colleges, | comply with |
|---------------------------------------|------------------------|---------------------|-------------|
| Sections 5.106.4.2.1 and 5.106.4.2.2. | | | |

- □ **5.106.4.2.1 Student bicycle parking.** Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
- □ **5.106.4.2.2 Staff bicycle parking.** Provide permanent secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable parking facilities shall be convenient from the street or staff parking area 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.
- □ 5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the

California Building Code, the California Electrical Code and as follows:

□ 5.106.5.3.1 Single charging space requirements. [N] When only a single_charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- 1. The type and location of the EVSE.
- 2. A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
- 3. The raceway shall not be less than trade size 1 inch.
- 4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
- 5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-amprere dedicated branch circuit for the future installation of the EVSE.

□ 5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- 1. The type and location of the EVSE.
- 2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
- 3. Plan design shall be based upon 40-amprere minimum branch circuits.
- 4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
- 5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

EV charging space calculation. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

- 1. Where there is insufficient electrical supply.
- Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

| TABLE 5.106.5.3.3 | | |
|---------------------------------------|--|--|
| TOTAL NUMBER OF ACTUAL PARKING SPACES | NUMBER OF REQUIRED EV CHARGING SPACES | |
| 0 – 9 | 0 | |
| 10 – 25 | 1 | |
| 26 – 50 | 2 | |
| 51 – 75 | 4 | |
| 76 – 100 | 5 | |
| 101 – 150 | 7 | |
| 151 – 200 | 10 | |
| 201 and over | 6 percent of total ¹ | |

^{1.} Calculation for spaces shall be rounded up to the nearest whole number.

□ **5.106.5.3.4 [N] Identification.** The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

□ **5.106.5.3.5 [N] Future charging spaces.** Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

□ **5.106.8 Light pollution reduction. [N]** Outdoor lighting systems shall be designed and installed to comply with the following:

- 1. The minimum requirements in the *California Energy Code* for Lighting Zones 0 to 4 as defined in Chapter 10, Section 10-114 of the *California Administrative Code*, and
- 2. Backlight, (B) ratings as defined in Illuminating Engineering Society of North America (IESNA) TM-15-11(shown in TABLE A-1 in Chapter 8), and
- 3. Uplight and Glare ratings as defined in *California Energy Code* (shown in TABLES 130.2-A and 130.2-B in Chapter 8) and
- 4. Allowable Backlight, Uplight, and Glare (BUG) ratings not exceeding those shown in Table 5.106.8 [N], or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

- 1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
- 2. Emergency lighting.
- 3. Building facade meeting the requirements in Table 140.7-B of the *California Energy Code*, Part 6.
- 4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Notes:

- 1. **[N]** See also *California Building Code*, Chapter 12, Section 1205.7 for college campus lighting requirements for parking facilities and walkways.
- 2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for Illuminating Engineering Society Technical Memorandum TM-15-11 Table A-1, *California Energy Code* Tables 130.2-A and 130.2-B.
- 3. Refer to the California Energy Code for requirements for additions and alterations.

TABLE 5.106.8 [N]

MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS (See CALGreen for TABLE)

□ **5.106.10 Grading and paving.** Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

- 1. Swales.
- 2. Water collection and disposal systems.
- 3. French drains.
- 4. Water retention gardens.
- 5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

□ **5.106.12 Shade trees. [DSA-SS]** 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.

□ **5.106.12.1 Surface parking areas.** Shade tree plantings, minimum #10 container size or equal, 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.

☐ **5.106.12.2 Landscape areas.** Shade trees plantings, minimum #10 container size or equal, shall be installed to provide shade over 20% of the landscape area within 15 years

Exception: Playfields for organized sport activity are not included in the total area calculation.

□ **5.106.12.3 Hardscape areas.** Shade trees 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, and hardscape areas covered by 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.

DIVISION 5.2 – ENERGY EFFICIENCY

SECTION 5.201 - GENERAL

□ **5.201.1 California Energy Code.** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 5.3 – WATER EFFICIENCY AND CONSERVATION

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| SECTION 5.303 – INDOOR WATE | R USE |
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| | ing fixtures and fittings. Plumbing fixtures (water closets and owerheads) shall comply with the following: |
| | ne effective flush volume of all water closets shall not exceed 1.28 ater closets shall be certified to the performance criteria of the U.S. is for Tank-Type Toilets. |
| Note: The effective flush vo volume of two reduced flush | lume of dual flush toilets is defined as the composite, average flush nes and one full flush. |
| 5.303.3.2 Urinals. | |
| ☐ 5.303.3.2.1 Wall mounted u exceed 0.125 gallons per flush. | urinals . The effective flush volume of wall mounted urinals shall not . |
| ☐ 5.303.3.2.2 Floor mounted shall not exceed 0.5 gallons pe | urinals . The effective flush volume of floor mounted or other urinals or flush. |
| 5.303.3.3 Showerheads | |
| | nead. Showerheads shall have a maximum flow rate of not more 30 psi. Showerheads shall be certified to the performance criteria of cifications for showerheads. |
| than one showerhead, the com controlled by a single valve sha | rheads serving one shower. When a shower is served by more bined flow rate of all showerheads and/or other shower outlets all not exceed 1.8 gallons per minute at 80 psi, or the showerhead one shower outlet to be in operation at one time. |
| Note: A hand-held sho | wer shall be considered a showerhead. |
| 5.303.3.4 Faucets and founta | ins. |
| | lavatory faucets. Non-residential lavatory faucets shall have a than 0.5 gallons per minute at 60 psi. |
| 1.8 gallons per minute at 60 ps | s. Kitchen faucets shall have a maximum flow rate of not more than i. Kitchen faucets may temporarily increase the flow above the ed 2.2 gallons per minute at 60 psi, and must default to a maximum ute at 60 psi. |
| | s. Wash fountains shall have a maximum flow rate of not more than im space (inches) at 60 psi]. |
| ☐ 5.303.3.4.4 Metering faucet cycle. | ts. Metering faucets shall not deliver more than 0.20 gallons per |
| | ts for wash fountains. Metering faucets for wash fountains shall ot more than 0.20 gallons per cycle/20 [rim space (inches) at 60 |
| Note: Where complying achieve reduction. | g faucets are unavailable, aerators or other means may be used to |
| installed in accordance with the | hbing fixtures and fittings. Plumbing fixtures and fittings shall be a California Plumbing Code, and shall meet the applicable 1701.1 of the California Plumbing Code and in Chapter 6 of this |

code.

SECTION 5.304 – OUTDOOR WATER USE

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 Evapotranspiration 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. **DIVISION 5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY** SECTION 5.407 – 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 1402.2 (Weather Protection), 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 as follows: ☐ **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. ☐ **5.407.2.2.2 Flashing.** Installed flashings integrated with a drainage plane.

SECTION 5.408 - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

- □ **5.408.1.1 Construction waste management plan.** Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plan that:
 - 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.

- 2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
- 3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
- 4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

□ **5.408.1.2 Waste management company.** Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

- 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.
- 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

| ☐ 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction |
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| disposal that does not exceed two pounds per square foot of building area may be deemed t |
| meet the 65 percent minimum requirement as approved by the enforcing agency. |

□ **5.408.1.4 Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 5.408.1.1 through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

- 1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx 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 the California Department of Resources Recycling and Recovery (CalRecycle).

SECTION 5.410 – 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, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption of Public Resources Code 42649.82 (a)(2)(A) et seq. will also be exempt from the organics waste portion of this section.

□ **5.410.1.2 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 CalRecycle's website.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.504.1 – POLLUTANT CONTROL

□ 5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

□ **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.
- 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.

TABLE 5.504.4.1 – ADHESIVE VOC LIMIT (See CALGreen for TABLE)

TABLE 5.504.4.2 – SEALANT VOC LIMIT

(See CALGreen for TABLE)

□ 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.

TABLE 5.504.4.3 – VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (See CALGreen for TABLE)

□ 5.504.4.3.1 Aerosol paints and coatings. Aerosol paints and coatings shall meet the PWMIR 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. Manufacturer's 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 at least one of the following testing and product requirements:

- 1. Carpet and Rug Institute's Green Label Plus Program;
- Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350);
- 3. NSF/ANSI 140 at the Gold level or higher;
- 4. Scientific Certifications Systems Sustainable Choice; or
- 5. Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria 2014 and listed in the CHPS High Performance Product Database.
- □ 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's 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 (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted by the ATCM must meet the specified emission limits as shown in Table 5.504.4.5.

TABLE 5.504.4.5 – FORMALDEHYDE LIMITS

(See CALGreen for TABLE)

□ **5.504.4.6 Resilient flooring systems.** For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:

- 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
- 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 2014 and listed in the CHPS High Performance Product Database; or
- 4. Products certified under the UL GREENGUARD Gold (formerly the Greenguard Children & Schools program).
- □ 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 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.

Exception: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

SECTION 5.505 – 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 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures see Section 5.407.2 of this code.

SECTION 5.506 - INDOOR AIR QUALITY

□ **5.506.1 Outside air delivery.** For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements for Ventilation) of the *California Energy Code*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

SECTION 5.507 - ENVIRONMENTAL COMFORT

□ **5.507.4 Acoustical control.** Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413 or Outdoor–Indoor Sound Transmission Class (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.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirement of this section and all subsections apply only to new construction.

□ 5.507.4.1 Exteriors noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

Exceptions:

- 1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
- 2. L_{dn} or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.
- 2. Within the 65 CNEL or L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

| ☐ 5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings |
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| exposed to a noise level of 65 dBL _{eq} -1-hr during any hour of operation shall have building, addition |
| or alteration 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). |

□ **5.507.4.2 Performance method.** For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (L_{eq} -1Hr) of 50 dBA in occupied areas during any hour of operation.

□ 5.507.4.2.1 Site features. Exterior features such as sound wall or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

| ☐ 5.507.4.2.2. Documentation of compliance. An acoustical analysis documenting |
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| complying interior sound levels shall be prepared by personnel approved by the architect or |
| engineer of record. |

□ 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.

Note: Examples of assemblies and their various STC rating may be found at the California Office of Noise Control: www. https://www.tsib.org/files/STC_IIC_Ratings.pdf

SECTION 5.508 – 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.

A DSA Project Submittal Guideline is a compilation of recommendations based on code, referenced standards, DSA bulletin/policy/procedure/interpretation documents, and DSA practices. These guidelines are intended to give the design profession helpful information and insight into DSA's project application, submittal, and review processes. Guidelines are provided by DSA in support of DSA's goals of providing stakeholders information they need to facilitate working smoothly with DSA, and to help standardize practices among the four DSA Regional Offices.

Compliance with a Guideline does not assure that a project is complete or that it adheres to the requirements of the California Building Standards Code (Title 24 of the California Code of Regulations) or all DSA requirements. Additional information may be required, depending on project complexity or site conditions. For complete submittal requirements see forms DSA 1:

Application for Approval of Plans and Specifications and DSA 3: Project Submittal Checklist.