

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y - YES
NA - WOT APPLEABLE
RESPON: PARTY - RESPONSIBLE PARTY (H: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.) Y NA RESPON CHAPTER 3 5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND, Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale. .106.12 SHADE TREES (DSA-SS). Shade Trees shall be planted to comply with Sections 5.106.12.1. 5.106.12.2 Where there is insufficient electrical supply.
 Where there is evidence suitable to the local enforcing agency substantisting 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 GREEN BUILDING 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. SECTION 301 GENERAL folder Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the origination properties of development or sale must comply with the post-construction requirements detailed in the origination of land that the same part of land that the properties of land that the same part of the second and with the same part of land that the same part of land that the same part of land that the second and with the same part of land that the same part of land that the same part of land that the Landstrat Report same part of land that the same part of land that the same part of land that the Landstrat Report same part of land that the same part of land that the same part of land that the Landstrat Report same part of landstrates are same part of landstrates and landstrates are landstrates are landstrates and landstrates are landstrates ar 5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be install to provide shade over 50 percent of the parking area within 15 years. 301.1 SCOPE. Buildings shall be designed to harder the green building measures specified as mendatory in the application deside that contained in this color volunting green building measures are also included in a spottation checitatis and may be included in the design and construction of structures covered by the code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. Exceptions: The surface parking area covered by solar photovoltaic shade structures, or shade structures, with roofing materials that compty with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculations. TABLE 5.106.5.3.3 The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES TOTAL NUMBER OF PARKING SPACES NUMBER OF REQUIRED SPACES 301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions 5,106,12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years. 10-25 Exceptions: Playfields for organized sport activity are not included in the total area calculation; tefer to the current applicable permits on the State Water Resources Control Board website at-www.waterboards.ca.gov/constructionstomwater. Consideration to the stormwater runoff man-hould be given during the initial design process for appropriate integration into site developme 5.105.12.3. Herdscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years. 76-100 301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only 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. For buildings within the authority of the Division of the Stat Architect neurand to Seather 105, comply with Seathor 5.166.4.2. Note: On and after January 1, 2014, certain commercial real property, as derived in Grid Code Section 1013, shall have its noncompliant plumting flutures replaced with appropriate water-consenting plumting flutures used septicific commandance. See Grid Code Section 101.1 in each of certain plumting flutures used septicific commandance. See Grid Code Section 101.0 in each of certain plumting flutures, and challes and responsibilities for replacement of noncompliant plumbing flutures, and challes and responsibilities for 201 AND OVER 6% of total DIVISION 5.2 ENERGY EFFICIENCY 1. Calculation for spaces shall be rounded up to the nearest whole numb 5,106.4.1 Bicycle parking, [BSC-CG]. Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter. 5.106.5.3.4 (N) Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device spece(s) for future EV charging as TEV CAPABLE". The racestermination Location shall be permanently and visibly marked as TEV CAPABLE". 5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anothered bicycle racks within 200 feet of the visitors entrance, readily white the possess-typ, not 5% of new visitor motorized visitor parking spaces being added, with a minimum of one two-thic capacity rack.
Exception: Additions or alterations which add office or less visitor vehicular parking spaces. 301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work. 5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for deep air whiteless DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION SECTION 5.301 GENERAL 301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) 301.5 HEALTH FACILITIES. (see GBSC) apter shall establish the means of conserving water use indoors, gutdoors 5.106.4.1.2 Long-term bicycle parking. For new butdings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vertical pracking spaces with a infinitum of one bicycle parking fadility. 5.106.8 LIGHT POLLUTION REDUCTION. [N].I Outdoor lighting systems shall be designed and installed to comply with the following: SECTION 302 MIXED OCCUPANCY BUILDINGS SECTION 5.302 DEFINITIONS ns are defined in Chapter 2 (and are included here for reference, 302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific occupancy. The minimum requirements in the California Energy Code for Lighting Zones C4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and Easthight (S) Indiaga as derifined in ES M-15-11 (Shoran in Table A-1 in Chapter 8);

Utility and Clare rethals as derived in California Energy Code (shown in Tables 130.2-A and 130.2-8 in Chapter 8).

The Chapter 8) and California Energy Code (shown in Tables 130.2-A and 130.2-8 in Chapter 8).

The Chapter 8 (shoran) is the California Energy Code (shown in Tables 130.2-A and 130.2-8 in Chapter 8).

The Chapter 8 (shoran) is the California Energy Code (shown in Tables 130.2-A and 130.2-8 in Chapter 8). EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and impation efficiency, which are two major influences on SECTION 303 PHASED PROJECTS 5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. Allowable 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. FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade not including exterior areas such as stairs, covered walkways, patios and decks. 303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant Improvements only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall allow. 5.106.4.1.5 Acceptable bloycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following: METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
 Emergency lighting.
 Bidlaring facels meeting the requirements in Table 140.7-8 of the California Energy Code, Part 6.
 Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and remotos of construction. 303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the Initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations. ORANWATER, Transacto least on water on eligibilities.

GRAWWATER, Transacto I health and Edity Cools Section 17922.12, "graywater" means unheated weaterwater this no to been contaminated by my talet discharge, he not been affected by principlicus, contaminated, or unhealthy booksy waster, and does not present a hereof from contamination by waterbilling processing, manufacturity, or operating waster. "Onlywater facilities for in the finite for waterbilling processing, manufacturity, or operating waster, such as the processing of the contamination of Covered, lockable enclosures with permanently anchored ra
 Lockable bloycle rooms with permanently anchored racks; or
 Lockable, permanently anchored bloycle lockers. ABBREVIATION DEFINITIONS: Department of Housing and Community Development Calloria Bullding Standards Commission Dividing of the State Archheet, Surviurial Safety Office of Statewide Health Planning and Development Low Rige Additions and Alterations 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 bloycle parking. Provide permanently anchored bloycle racks conveniently accessed with a minimum of four two-tike capacity racks per new building.
5.006.4.2.2 Staff bloycle parking. Provide permanent, accessed to they be parking conveniently accessed with a minimum of two staff bloycle parking spaces per new building. Acceptable bloycle parking facilities staff be convenient from the state or staff parking race and shall meet one of the flighting. MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELD), (HCD) The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, hatallation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance as effective as the MWELO. CHAPTER 5 TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT NONRESIDENTIAL MANDATORY MEASURES Covered, lockable enclosures with permanently anchored racks for bloycles;
 Lockable bloycle rooms with permanently anchored racks; or
 Lockable, permanently anchored blovels. DIVISION 5.1 PLANNING AND DESIGN POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5. LIGHTING LIGHTING ZONE LZ1 ZONE LZ2 LIGHTING ZONE LZ3 ALLOWARIE PATING SECTION 5.101 GENERAL 5.101.1 SCOPE 5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-entiting frue-efficient and carpool/van ood vehicles as follows: BACKLIGHT RATING uminaire greater than 2 mounting heights (MH) from property line RECYCLED WATER, Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply out, recycled water is water treated to remove waster matter attaining a quality that is suitable to use the water again. N/A No Limit No Limit No Limit No Limit SECTION 5.102 DEFINITIONS 5.102.1 DEFINITIONS TOTAL NUMBER OF PARKING SPACES NUMBER OF REQUIRED SPACES uminaire back hemisphere is I-2 MH from property line EFINITIONS ing terms are defined in Chapter 2 (and are included here for reference) SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose such as landscape imigation. For the purposes of CALGreen, a decicated meter may be considered a submeter. CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candels per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nacir, and 100 (10 percent) at a vertical angle of 80 degrees above nacir. This applies to all lateral angles or more than the uninaire. Luminaire back hemisphere I 0.5-1 MH from property line N/A B1 B2 ВЗ В3 WATER BUDGET. Is the estimated total landscape Irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape. 25-50 Luminaire back hemisphere is less than 0.5 MH from property N/A B0 LOW-EMITTING AND FUEL EFFICIENT VEHICLES. Eligible vehicles are limited to the following: B2 76-100 SECTION 5 303 INDOOR WATER USE Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicles (PZEV), advanced technology PZEV (AT ZEV) or CNG based (ortginal enginement manufactures only) regulated under Heeldm and selectry Code section 4800 and CCR, Title 33, Sections 1961 and 1962.
 High-efficiency vehicles, regulated by U.S. EPA, Dearfing High-Docupanny Vehicle (HOV) car pool lane siziones issued by the Department of Motor Vehicles. devices shall be installed for the uses described in Sections 101-150 MAXIMUM ALLOWABLE UPLIGHT RATING (U) AT LEAST 8% OF TOTAL For area lighting . N/A For each individual leased, rented or other tenant space within the bullding projected to consume more than 100 galdosy (380 Lday), including, but not littled to, spaces used for laundy or cleaners restourant or food service, medical or detail office, liboratory, or beauty salan or starter shapes.
 Where separate submetters for individual building tenants are unfeasible, for water supplied to the following subsystems; or all other outdoor N/A U1 U2 U3 UR NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of Tow-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to MAXIMUM ALLOWABLE wing subsystems;
Maksup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
Maksup water for evaporative coolers greater than 6 gpm (0.04 L/s).
Steam and hot water boilers with energy input more than 500,000 Bluth (147 kW). SLARE RATING : (G TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as perma occupants, such as employees, as distinguished from customers and other transient visitors. uminaire greater than 2 MH rom property line Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nosprofit work-related transportation of adults for the purpose of ideathering. 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 nacilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) Isiare installed, it shall be in accordance with the California Eucliding Code, the California Electrical Code and as follows: uminaire front hemisphere is I-2 MH from property line Luminaire front hemisphere is 0.5-1 MH from property line 5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and graphs and fittings (faucets and showerheads) shall comply with the following: Note: Source: Vehicle Code, Division 1, Section 668 N/A G0 G0 G1 G1 ZEV. Any vehicle certified to zero-emission standards 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 Effectival Code. Construction plans and Luminaire back hemisphere is less than 0.5 MH from property 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 Secification for Tank-Type totals. N/A SECTION 5-106 SITE DEVELOPMENT 5-106. IS TORM WATER POLIUMON PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and distince which distants less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water nunoff from the construction activities through one or more of the following measures: GO GD nd shall be installed in accordance with the Caworna Electrical pecifications shall include, but are not limited to, the following: IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the altifornia Energy Code and Chapter 10 of the California Administrative Code. Note: The effective flush volume of dual flush to lets is defined as the composite, average flush volume of two reduced flushes and one full flush. The type and location of the EVSE 1. The type and location of the EVSE.

1. The type and location of the EVSE.

1. The powery shall not be less than trace date it in a subgrade serving the area, and shall be a like that the size of the state it in a subgrade serving the area, and shall be a like that the size of the state it in a subgrade serving the area, and shall be interestate in classification of the area of the state of 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 callons per flush. 5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control nine may be considered to as 3 set beyond the actual property mile for proper of determine complance with this section. For property lines that abut public roadways and public transk confiders, the property line may be considered to be the centerine of the public roadway or transit confider for the purpose of determining complance with this section. 5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sectiment control and good housekeeping BMPs. 5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other unnals shall not exceed 0.5 gallons per flush. If the nearest property Ine is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met. 1. So less titled that should be comissed for implementation as appropriate for each project include
a. Scheduling construction shifty duting dry weather when possible.
b. Scheduling construction shifty outing dry weather when possible.
c. Scheduling construction shifty outing dry weather when possible.
b. Scheduling construction shifty outing dry weather when possible control sentences that the shift of 5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 Single showerhead. Showerheads shell have a maximum flow rate of not more than 1.8 gallons per minute at 80 ps.; Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads. 5.106,5.3.2 Multiple charging space requirements, [N]. When multiple charging spaces are required per Table 5.106,5.3.3 receively(s) later required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and spaces in the California Code. Construction plans and spaces. 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 If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met 5.303.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a step away shall not exceed it. 8 gains pare mitual as 10 pst. of the shower shall be destyned to allow only one shower outlet to be in operation at a time.
Note: A hand-shall shower shall be considered a showerhead. 1. The type and leading of the ISSES.

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Out has accepted BMP to invariance continuous engagement, makesiats, non-atormizate discharges are not limited to, the following control of insplantations as appropriate for each project include, but are not limited to, the following control of the propriate products.

Descripting pointiess.

Description pointin 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 v include, but are not limited to, the following: Seeles.
 Water Cellection and disposal systems.
 French drains.
 Water Cellection and supposal systems.
 French drains.
 Water reteration gardens.
 Other water measures which keep surface water away from buildings and add in groundwater. 5.106.5.3.3 EV charging space calculations. [N] Table 5.108.5.3.3 shall be used to determine single or multiple charging space requirements apply for the future installation of EVSE. recharge.

Exception: Additions and alterations not altering the drainage path.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE 2016 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMEN ONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERRICATION WITH THE FULL CODE



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NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

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NA NOT APPLICABLE
RESPON PARTY RESPONSIBLE PARTY G. ARCHITECT, EMSABER
YMMER, CONTRACTOR, INSPECTOR ETC.) SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT 5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as req Celtifornia Bullding Cools Section 1402.2 (Weather Protection), manufacturer's Installation Instructions or local cordinance, whichever is more stimped. 5.416.2 COMMSSSDWDR, (II) New holdings 1.0006 square feet and over, For me holdings 1.0005 square feet and over, Lotting commissioning with the include in the design and constraining produced for holdings in the design and constraining produced for holdings project. It is explained to the contraction of the holding project for verify has the subdiving wide to previously making the contraction of the project feet and components of the contraction of the section by training project. It is explained to the contraction of the section by training contracting with the special project feet and the section by training contracting the section of the section by training contracting the section of the section by training the section of the se 5.410.4.4 Reporting. After completion of testing, adjusting and belancing, provide a final report of testing signed by the individual responsible for performing these services. 5,303,3.4 Faucets and fountains 5.419.4.5 Operation and maintenance (O.8.M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties wavarraties for each system. O.8.M returbutions shall be consistent with OSMA requirements in CCR, Title 6, Section 5142, and other related to 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. 5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gattors per minute at 60 pst. Kitchen faucets may temporarily increase the tow above the maximum rate, but not to exceed 2.2 gattors per minute at 60 pst, and must default to a maximum flow rate of 1.8 gattors per minute at 60 pst. 5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on stru Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including hearing ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water hearing systems and controls, effect to California Energy Code Section 120.8 for commissioning requirements 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: 5,303,3,4.3 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). DIVISION 5.5 ENVIRONMENTAL QUALITY Owner's or Owner representative's project requirements.
 Basis of design. SECTION 5.501 GENERAL
S.501.1 SCOPE. The provisions of this chapter shall oulline means of reducing the quantity of air contaminants that
5.501.1 SCOPE. The provisions of this chapter shall oulline means of adulting's histiliers, occupants and neighbors 5,303,3,4.4 Metering faucets. Metering faucets shall not deliver more than 0,20 gallons per cycle. An installed awring at least 4 feet in depth.
The door is protected by a roof overhang at least 4 feet in depth.
The door is recessed at least 4 feet.
Other methods which provide equivalent protection. 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 minute/20 (nim space (inches) at 60 psi. SECTION 5.502 DEFINITIONS
5 502 1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference) Note: Where complying faucets are unavailable, aerators or other means may be used to achieve 5,407,2,2,2 Flashing, Install flashings integrated with a drainage plane ARTERIAL HIGHWAY, A general term denoting a highway primarily for through traffic usually on a continuous rout Exceptions: 5.303.4 COMMERCIAL KITCHEN EQUIPMENT SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND 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 western-losed) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 6 gpm of water. Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation. unconditioned warehouses.

Tenant improvements less than 10,000 square feet as described in Section 303.1.1.

Open parking garages of any size, or open parking garage areas, of any size, within a structure. 1 BTUHOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fairenhelt per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Bt the amount of heat required to me at an (2,000 pounds) of ice at 22° Fairenhelt. 5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California But drig Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shell apply to new futures in additions or series of alteration to the building. 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that: COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent conflances sound exposure level for evering hours (7) to 10pm) in addition to the 10 dB rightlime adjustment used in the Ldn. Informational Notes 1. Bearing the construction and derectifier vasion anniability to be deemed foun discount by efficient season, excepting name on the register of enables for future user their construction and demellation waste medicate will be contained on-the (course-separated) but mixed (single interess).

1. Construction and demellation waste medicated but be contained on-the (course-separated) but mixed (single interess).

2. Specifies that the amount of construction and demellation waste medicated but be below.

3. Specifies that the amount of construction and demellation waste medicated but be below. IAS AC 476 is an accreditation oriteria for organizations grouting training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualification of commissioning personnel. AC 476 is not certify individuals to conduct functional performance tests or to acjust and balance systems. 5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing features and fittings shall be installed in apportance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood physical positive broad and medium dentryl filterhood. Composite wood products' does not hucked annichated, structural physical positive structural composite bumber, oriented strand board, glued laminated timber, filter prefabricated wood Hjoist or ringer-jented humber, all as specified in California Codo of Regulations (COR), Tille 17. Section 93120. (10). SECTION 5.304 OUTDOOR WATER USE 5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply with a local water efficient professor configure or the current California Department of Visiter Resources' Model Water Efficient Landscape Ordinance (WiNELD), whichever is more shinglent. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code. Note: See CCR. Title 17. Section 93120.1. 5.408.1.2. Waste Management Company. Utilize a waste management company that can provide verifisible documentation that the percentage of construction and demojition waste material civerted from the jandfill complex with this section. DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nightlime hours (10p.m. to 7 a.m.). \$4.03.0. Owner's or Owner Representative's Project Reputments (DRPs, I)(I) The operations are requirements of the bulbing apposition in the phase shall be described by the operation of the phase of the project begins. This documentation has lincide the delayer bulber of the II. Indicemental and established by goods.

1. Indicemental and established by goods.
2. Indicemental and established by goods.
3. Indicemental and established by leads.
4. Project program, including facility functions and hours of operation, and need for after hours. DECIBEL (db), A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure sound power, sound intensity) with respect to a reference quarnity. Notes:

1. The Model Water Efficient Landscape Ordinance (MWELO) is boated in the California Code of Regulation Title 23, Chapter 2.7 Dinision 2.

2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.weder.sa.gov/. Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company. ELECTRIC VEHICLE (EV). An automotive-type vehicle for con-road use, such as passenger automotives, buses, trucks, vans, nelphonhood sidentic vehicles, deletin motorcycles, and the like, primatify powers by an electric motor did reserve current from a endraguelate longe patienty, filed of publicated area vary or other source of electric current of the contract of t Excavated soil and land-dealing debris.
 Alternate wester-reduction methods developed by working with local agencies if diversion or recycle ricidilities capital of comparisons with its item do not exist.
 Demoltton waster meeting local ordinance or calculated in consideration of local recycling fadilities and markets. 5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS, For public schools and community colleges, landscape projects are described in Sections 5.304.6.1 and 5.304.6.2 that comply with the California Department of Water Resources Month Water Edential enticespee Outdranes (WRICEL) commanded by Mis Section 480 of Chapter 2.7. Devices. The 2.3. California Code of Regulations, except that the exceptorangilation adjustment factor (ETAF) shall be 0.55 with an additional value adjustment factor (ETAF) shall be 0.55 with an additional value adjustment factor (ETAF). optimization

5. Equipment and systems expectations.

6. Building occupant and operation and maintenance (O&M) personnel expectations. 5.410.2.2 Basis of Design (BOD). [N] 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. The Basis of Design document shall ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicle 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that not exceed two pounds per square foot of building area may be deemed to meet the 65% mH/mum regula sa perioved by the enforcing agency. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, indusing the ungrounded, grounded, and equipment grounding conductors and the electric connectors, attachment plugs, and all their fiftings, devices, power couldes, or apparatus installed specifically for the purpose of brandering energy between the premises wising and the discrit vehicle. 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. ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest. 5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:

1. General project information:
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include: 5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet. EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided on been crede exposurations at intersections. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)"
 Invasted at www.bsc.ca.coviHomeiCALGreen.aspx may be used to assist in documenting compliano located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliand with the waste management plan.

2. Mixed construction and demicition debris processors can be located at the California Department of Resources Recycling and Recovery (Califoxycle). planation of the original design intent.
ment and systems to be tested, including the extent of tests. REEWAY. A divided arterial highway with full control of access and with grade separations at intersections. DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE Equipment and systems to be tested, including the Functions to be tested. Conditions under which the test shall be performed. Measurable criteria for acceptable performance. GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greent gas relative to an equivalent unit of carbon douds over a given period of time. Carbon douds is the reference SECTION 5.401 GENERAL
5.401.1 SCOPE. The previsions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from enterior motiture, construction waste direction, employment of exchanges from enterior motiture, construction waste direction, employment of exchange and adjusting, and buildings commissioning or leading and adjusting. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included. GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Pand on Climate Change (IPCC) or lather its Second Assessment Report (SRR) (IPCC, 1995); or is Fourth Assessment A-3 Report (ARM) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 21-ti, the ARM GWP values are found in column "100" or "I table 21-ti. 5.410.2.4 Functional performance testing, [N] 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 ability contains charges each of the butding components tested, the testing methods utilized, and include any readings and adjustment. Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/LawsRegsPolkJes/Regs/upload/OEAR-A_REGS_UWR_FinafText.pdf SECTION 5.402 DEFINITIONS 5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference) HEN-GVIP REFRIGERANT. A compared used see a best transfer fluid or gas that is; (a) a citicollusorantom, a untrochlarchisonosition, a hydrothisonosition, a perfluorocarbon, or any compound or ident of compounds, with a distribution of the control of compounds, with a distribution of the control of compounds, who are controlled in the control of compounds with a controlled in the controlled Recolations. Part 82, see 28.23 (as amended March 10, 2009). 5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent 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 stockpled on site until the storage after is developed. 5.410.2.5 Documentation and training, [M] 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. LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction with a radius 1.5 times the pipe diameter. BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities. Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation LOW-GWP REFRIGERANT. A compound used as a heat transfer full or gas that: (A) has a GWP value less than 150, and (B) Is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as emmoded March 10, 2009). 5.410.2.5.1 Systems manual, [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, Including widthing and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's proced requirements. A-642.5.1 Systems manual, PII Occumentation of the operational aspects of the building shall consider the state of the full of the state of the stat ORGANIC WASTE. Food waste, green waste, landscape and pruning wate, nonhazardous wood waste, and food solled paper waste that is mixed in with food waste. MAXIMUM INCREMENTAL REACTIVITY (MIR), The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS RECYCLING BY OUCUPANIS. Provide reacity accessions areas that serve the entire building and art for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum rrugated cardiopard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling 5.410,2.5.2 Systems operations training, (R) A program for training of the appropriate maintenance state for each evaluation type and/or system that his developed and documented in the commissioning representation of the commissioning representation of the commission of servicing/preventive maintenance.
3. Review of the information in the Systems Mannat.
4. Review of the information in the Systems Mannat.
6. Review of the information in the Systems Mannat. Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources
Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section PSIG, Pounds per square Inch, guage. REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere. 5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area. SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pine diagneter. 5.410.1.2 Sample ordinance. Space ellocation for recycling areas shall comply with Chapter 18, Parl 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1989 (Act). 5.410.2.6 Commissioning report. [N] 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 SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site. 5,410,4,2 (Reserved) SECTION 5.503 FIREPLACES 5,503.1 FREPLACES, Install only a direct-vent sealed-combustion gas or sealed wood-burning freplace, or a sealer woodstove or pell stations, and refer to residential requirements in the California Energy Code, Tidle 24, Part 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 U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified in meet the emission limits. 5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Syst included for testing and adjusting shall include at a minimum, as applicable to the project:

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTERDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE 2016 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE CONTROL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS. THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL OF THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system. 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; Associates Art Bata

Council National Standards or as approved by the enforcing agency

SECTION 5.04. POLLUTIANT CONTROL

SECTION 5.04. INSPECTION WITH A STATE OF THE PROPERTY OF THE

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 health, coding and verification equipment, all duct and other related at distribution component copanings shall be covered with tape, placed, shederheal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.



2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

TABLE 5 504 4 3 - VOC CONTENT LIMITS FOR ARCHITECTURAL

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y YSS
NIA - NOT APPLICABLE PARTY IN: ARCHITECT, ENGINEER
RESPON: PARTY - RESPONSE PARTY IN: ARCHITECT, ENGINEER
RESPONSE IN CONTRACTOR INSECTION FOR

	Y	A RESPON PARTY		1
F	5 0	1	5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through	
İ	Ť		5.504.4.6.	

4.56.4.4. Administra, sealants and coalita. Administra, sealants, and coalita used on the project shall meet be replacements of the floating glarisations.

1. Administra, otherwise bording primers, administration primers, asselunts, souther primers and coalis shall applicable or 50.000 floating seal toward in the Sealants of the Sealants and application of 50.0000 floating sealants in 166-55.04.4.4 or 50.44.2. Such products also shall comply on the Asia 1162 portation on the use of crinish tools compound a compound of the Sealants of

Associatives, and smaller unit sizes of adherices, and sealent or calling compounds (in units of croduct, less gastraging, which do not weight more than one pound and do not consist of more than 16 ful disources) shall comply with stateries VoC standards and other requirements, including profibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commend with Section 4904.

ess 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 ADHESIVES	100		
RUBBER FLOOR ADHESIVES	60		
SUBFLOOR ADHESIVES	50		
CERAMIC TILE ADHESIVES	65		
VCT & ASPHALT TILE ADHESIVES	50		
DRYWALL & PANEL ADHESIVES	50		
COVE BASE ADHESIVES	50		
MULTIPURPOSE CONSTRUCTION ADHESIVES	70		
STRUCTURAL GLAZING ADHESIVES	100		
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250		
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50		
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 & TRIM ADHESIVE	250		
SUBSTRATE SPECIFIC APPLICATIONS			
METAL TO METAL	30		
PLASTIC FOAMS	50		
POROUS MATERIAL (EXCEPT WOOD)	50		
WOOD	30		
FIBERGLASS	80		

- IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
- FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

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		
POROUS	775		
MODIFIED BITUMINOUS	500		
MARINE DECK	760		
OTHER	750		

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VCC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PVMAIR Limits fo ROC in Section 94522(a)(3) and other regularements, his clarity problems on use of crists invaid comprounds and coaten depleting substances, in Sections 5452(c)(2) and (6)(2) of Coations Code of the Coaten Code of the Coaten Code of the Coaten Code of the Coaten Code of Bay Area Air Coality Management District additionally comply with the percent VOC by weight of product limits of Regulation 6 Rola 49.

COATING CATEGORY	CURRENT VOC 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:	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORMA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE

5.594.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforching agency. Documentation may hotically but its not limited to, the following:
 1. Manufacture's product pecification
 2. Field verification of on-afte product containers

5.504.4.4 Carpet Systems. All carpet Installed in the building interior shall meet at least one of the testing and

5.504.4.4.2 Carpet adhesive, All carpet adhesive shall meet the requirements of Table 5.504.4.

5.504.5. Composite wood products. Historico physicol, patient of the patient of table 6.504.4.5 composite wood products. Historico physicol, patient patient of the patient

- Product certifications and specifications.
 Chain of custody certifications meeting the Composite Wood Products regulation (see COS).
 High experiments of the Composite Wood Products regulation (see COS).
 High experiments with the Section Section (see CoS).
 Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian ASNESS 2280 or European 303 S
- standards.

 5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS: MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION			
HARDWOOD PLYWOOD VENEER CORE	0.05		
HARDWOOD PLYWOOD COMPOSITE CORE	0.05		
PARTICLE BOARD	0.09		
MEDIUM DENSITY FIBERBOARD	0.11		
THIN MEDIUM DENSITY FIBERBOARD:	0.13		

VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CAUFORNIA AR RESOURCES BOARD, AR TOUGS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CAUFORNIA COSE OF REGULATIONS. TITLE 17, SECTIONS 9120 THROUGH.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 516 INCHES (8 MM).

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:

- Centification of the Recipitation Flow Coperating Institute (PECE) Floridation programs. Complement with Institute in Workshort Institute in extensive generations couldness in the California Department of Public Health 2:200 Standard Method for the Testing and Equipment Coperation. Complement with Collisationals for Inflammons Standard Controlled and Section 1:200 Complement (Inclination Controlled Con

5.594.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

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 Nikhhum Efficiency Reporting Value (NERV) of 13. MERV / 3 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.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, probiblt enoughing within 25 feet of building enview, outdoor air tables and operated environes and eight in the building as descript probible to you for the same or egoldance; or als enforced to operations, regulation or political of any of the same of the

SECTION 5.595 INDOOR MOISTURE CONTROL.
5.595,1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code,
CCR, Tab 41, Part 2, Sections 1202 (Vertilation) and Chapter 14 (Extenior Walls), For additional measures, see
Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY
5.506.1 OUTSDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the inharmum
requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local
code, witchever is more stiffingent, and Division 1, Chapter 4 of CoR, Tigle 8.

5.506.2 CARBON DIOXIDE (CO₂) MONITORING. For buildings or additions equipped with demand control ventilation. CO₂ sensors and ventilation controls shall be specified and installed in accordance with the requi-

SECTION 5.507 ENVIRONMENTAL COMFORT 5.507.4 ACOUSTICAL CONTROL. Employ building assembles or

5.207.4 ACOUSTICAL CONTROL. Employ building assembles and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 415, or Outdoor-indoor Sound Transmission Class (CTC) 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 requirements of this section and all subsections apply only to new construction.

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

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

- Low or CNEL for military airports shall be determined by the fadility Air installation Compatible
 Land Use Zone (AICUZ) plan.

 Lee 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.
- Within the 65 CNEL or L+ notice contour of a freeway or expressway, relined, 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 exposed to a notes level of 65 dB lag. - 14r during any hour of operation shall have building, addition or alteration exterior wall and not-cleating assembles exposed to the noise source meeting a composite STC rating of at least 45 (or OTIC 35), with exterior wall and.

5.597.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-celling assemblies separating tenant spaces and tenar 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 the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/sto_icc_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 5,509.1.2.

5.598.1.1 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.

5,000, 2 Supermarket refrigerant leak reduction, New commercial refrigeration systems shall comply with the prohibitor of this section when installed in retail food sitems 8,000 square feet or more conditioned enes, and that conducting the state of the section
Exception: Reintgeration systems containing low-globel warming potential (low-GWP) reintgerant with a GWP value less than 150 are not subject to this section. Low-GWP reintgerants are nonozone-depleting refigerants that Include amontal, carbon disude (CO₃), and potentially other entifigerant.

5.508.2.1 Refrigerant piping, Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside clamater (OD) less than 1/4 inch, thared tubing connections and short radius aboves shall not be used in refrigerant systems except as notice below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack

5,508,2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.598.2.1.4 Elbows. Short radius elbows are only permitted where space Imitations prohibit use of

5.508.2.2 Valves, Valves Valves and fittings shall comply with the California Mechanical Code and as

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5,508,2,2,2 Access valves. Only Schrader access valves with a brass or steel body are

5.508.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seel caps.

Exception: Valves with seal caps that are not removed from the valve during stem

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar are salt shall have evaporator colls of corrosion-resistant material, such as stainless steel; or be coated to prevent.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

5,508,2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 pale minimum.

5,508,2,5,2 Leaks, Check the system for leaks, repair any leaks, and retest for pressure using the same

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/-50 microns), and hold for 30 microns.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hour with a maximum drift of 100 microns over a 24-hour period.

INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the property.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owners agent shall enough one or more security inspection to provide inspection or to the satisfaction of the endering agency of the endering agency. The endering conficiency of the satisfaction of capilifications acceptable to the enforcing agency, the following certifications or equilifications acceptable to the endering agency of a special transpect and or a special transpect a

- Certification by a national or regional green building program or standard publisher.
 Certification by a statewise energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
 Successful completion of a third party apprention training program in the appropriate trade.
 Other programs acceptable to the enforcing apaney.

Special inspectors shall be independent entities with no financial interest in the materials or the
project they are inspecting for compliance with this code.
 HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate
homes in California according to the Home Energy Rating System (HERS).

IBSC-COI When required by the enforcing agency, the conner or the responsible entity acting as the conner's open stud entity or est more special inspectors to provide inspection or other duties recessary to abbrinding appropriate provides the contraction of the primary (but function, as determined by the local agency. The

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, accommendation documents, plans, special production of comments, plans, special productions, business are subsidier conflictation, inspecial respects or other methods consolitated to the entire charge agreement of the production of subsidieration conformations are consolitated to the entire charge agreement of the production of the production is mecessary to entire charge agreement of the production or described applicable charge (compliance, that method of compliance will be specified in the appropriate control or described applicable charge (compliance, that method of compliance will be specified in the appropriate control or described applicable charge.)