

**INITIAL STATEMENT OF REASONS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
REGARDING THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen)  
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11**

(HCD XX/XX)

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The Administrative Procedure Act (APA) requires an Initial Statement of Reasons (ISOR) to be available to the public upon request when rulemaking action is being undertaken. The following information required by the APA pertains to this particular rulemaking action:

**STATEMENT OF SPECIFIC PURPOSE, PROBLEM, RATIONALE AND BENEFITS:**

(Government Code Section 11346.2(b)(1)) requires a statement of specific purpose of **EACH** adoption, amendment or repeal, the problem the agency intends to address and the rationale for the determination by the agency that EACH adoption, amendment or repeal is reasonably necessary to carry out the purpose, including the problem the agency intends to address, for which it is proposed. The statement shall enumerate the benefits anticipated from the regulatory action, including the benefits or goals provided in the authorizing statute.)

**1) The Public Problem, Administrative Requirement, or Other Circumstance Addressed.**

**Administrative Requirement:** Health and Safety Code Section 17921 directs the Department of Housing and Community Development (HCD) to propose adoption, amendment or repeal of building standards for the protection of public health, safety and general welfare.

**2) Specific Purpose**

The specific purpose of these regulations is to carry forward and amend the 2013 California Green Building Standards Code (CALGreen) into the 2016 California Green Building Standards Code (CALGreen), Title 24, Part 11, of the California Code of Regulations (CCR) for the following programs:

- a) **State Housing Law:** relative to residential occupancies, buildings or structures accessory thereto and as provided in Health and Safety Code Section 17921.2.
- b) **Employee Housing Act:** relative to any building or structure or outdoors on premises or property in accordance with Health and Safety Code Section 17040.
- c) **Factory-Built Housing Law:** relative to residential buildings, dwellings or portions thereof, or building components, or manufactured assemblies in accordance with Health and Safety Code Section 19990.

**3) Rationale for Necessity**

The proposed actions continue to adopt, amend or repeal portions of the 2013 CALGreen into the 2016 CALGreen as part of the 2015 Triennial Code Adoption Cycle established by the California Building Standards Commission (CBSC). The intent of the 2016 triennial version of CALGreen is to:

- (1) Continue reducing greenhouse gas (GHG) emissions from buildings.
- (2) Result in environmental benefits through reduced use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduction in detrimental environmental impacts.
- (3) Continue the Administration's directive to adopt green building standards for residential, commercial, and public building construction as part of the building code adoption process.

Proposed amendments in this rulemaking are also intended to provide further clarity, specificity and direction to the code user, and to implement and make specific existing state laws. Proposed amendments are a result of

recommendations developed during the public participation period prior to submittal to the CBSC. The rationale for each proposed amendment by chapter and section is listed below.

**Specific Proposed Regulatory Actions:**

HCD proposes to continue adoption of the 2013 CALGreen with amendments into the 2016 CALGreen. The rationale for each regulatory action is listed below.

**Note:** There is no model code language associated with CALGreen; therefore, all language consists of California text.

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**1. CHAPTER 1  
ADMINISTRATION**

HCD proposes to continue adoption of Chapter 1 from the 2013 CALGreen into the 2016 CALGreen with modifications as follows:

**SECTION 101 – GENERAL**

**Section: 101.5.1 Building.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. Currently Section 101.5.1 refers to the California Building Code and the California Residential Code as the applicable codes related to construction, alteration, movement, enlargement, replacement, repair, use and occupancy, location, maintenance, removal and demolition of every structure in California. The proposed modification provides an additional reference to the California Existing Building Code, which now includes provisions for existing buildings formerly in the California Building Code. The proposed modification provides clarity to the code user. There is no intended change in regulatory effect.

**Section: 101.7.1 Findings and filings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with nonsubstantive editorial modification. The modification provides the code user with the correct address where the HCD headquarters is now located.

**SECTION 104 – DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

**Section: 104.1 Scope.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “apartment houses” with “apartments,” as proposed in the 2016 California Building Code (CBC). The term “apartment house” was defined and used last in the 2001 CBC, when the Uniform Building Code was the model code in California. The term “Apartment house” has not been used (except in Chapter 1) in the CBC since 2007, when the International Building Code became the model code. The term currently used in the CBC is “apartment.” The proposed modification provides clarity and consistency with the CBC. There is no intended change in regulatory effect.

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**2. CHAPTER 2  
DEFINITIONS**

HCD proposes to continue adoption of Chapter 2 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

**SECTION 202 – DEFINITIONS**

**DEMAND HOT WATER RECIRCULATION SYSTEM.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “Demand Recirculation System” is used in Section A4.303.5, which HCD proposes for adoption.

**ELECTRIC VEHICLE (EV) CHARGER.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “electric vehicle charger” is used in

Section 4.106.4, but is not defined. The proposed definition provides clarity to the code user. There is no intended change in regulatory effect.

**ELECTRIC VEHICLE CHARGING SPACE (EV SPACE).**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “electric vehicle charging space” (EV space) is used in HCD’s new proposals in Sections 4.106. 4.2 and A4.106.8.2 (HCD proposes to replace the term “electric vehicle charging station” with the term “EV charging space”) and needs to be defined. (See rationale for Sections 4.106.4.2 and A4.106.8.2.) The proposed definition provides clarity to the code user. There is no intended change in regulatory effect.

**ELECTRIC VEHICLE CHARGING STATION (EVCS).**

**Rationale:** HCD proposes to amend the above referenced definition. The newly proposed language clarifies that the EVCS is an EV charging space with an EV charger (or other charging equipment) installed to serve this space. This proposal is necessary due to HCD’s proposal to replace the term “electric vehicle charging station,” currently used in Sections 4.106.4.2 and A4.106.8.2, with the term “EV charging space.” The proposed definition is also consistent with the definition, proposed by the Division of State Architect (DSA) in Chapter 2 of the California Building Code. (See rationale for “electric vehicle charging space” and Sections 4.106.4.2 and A4.106.8.2.)

**HOT WATER RECIRCULATION SYSTEM.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “hot water recirculation system” is used in Section A4.303.5, which HCD proposes for adoption.

**HYBRID URINAL.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “hybrid urinal” is used in HCD’s new proposal in Section A4.303.4. The proposed definition is consistent with the definition in the IAPMO IGC 311-2014 (IAPMO Guide Criteria), which is the current standard for hybrid urinals with high-efficiency drain cleansing feature.

**ORGANIC WASTE.**

**Rationale:** HCD proposes to adopt the above referenced definition. The term “Organic waste” is used in Section 4.410.2, which HCD proposes for adoption. The proposed definition is consistent with the definition in the Public Resources Code, Section 42649.8(c).

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**3. CHAPTER 4  
RESIDENTIAL MANDATORY MEASURES**

HCD proposes to continue adoption of Chapter 4 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

***Division 4.1 – PLANNING AND DESIGN***

**SECTION 4.106 – SITE DEVELOPMENT**

**Section: 4.106.4.2 New multifamily dwellings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “EV charging stations” with “EV charging spaces” since the term “EV charging space” better describes a space available for future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code. (See the definitions of “EV charging space” in Chapter 2 of CALGreen.)

HCD also proposed to repeal the requirement for identification of EVCS on the construction documents. The same requirement is addressed in Section 4.106.4.2.1; there is no reason for the same requirement to be duplicated. The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

- Sections:**
- 4.106.4.2.1 Electric vehicle charging space (EV space) locations.**
  - 4.106.4.2.2 Electric vehicle charging space (EV space) dimensions.**
  - 4.106.4.2.3 Single EV space required.**
  - 4.106.4.2.4 Multiple EV spaces required.**

**Rationale:** HCD proposes to continue adoption of the above referenced sections with modifications. HCD proposes to replace the term “EVCS” with “EV space” or “EV spaces” since the terms better describe a space available for

future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code (See the definition of “EV charging space” in Chapter 2.)

The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

**Section: 4.106.4.2.5 Identification.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification and editorial corrections. HCD proposes to repeal Note 4, and correct the link to the California Manual on Uniform Traffic Control Devices (California MUTCD) in Note 1.

Currently Note 4 refers to the Governor’s Office of Planning and Research (OPR) draft guidelines (Plug-In Electric Vehicles: Universal Charging Access Guidelines and Best Practices), addressing physical accessibility standards and design guidelines for EVs. The guide cited in Note 4 is still available, but the Division of the State Architect is currently developing accessibility standards for EV charging stations. When these standards are adopted (2016 CBC), they become mandatory, and there will be no need for the best practices to be used and for this guide to be referenced.

The proposed modification provides clarity and consistency to the code user. There is no intended change in regulatory effect.

**Division 4.3 – WATER EFFICIENCY AND CONSERVATION**

**SECTION 4.303 – INDOOR WATER USE**

**Section 4.303.1.2 Urinals.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to repeal the date, which clarifies that Section 4.303.1.2 becomes effective on January 1, 2016, and also to change the word “The” to a capital letter T, as it is now the beginning of the sentence.

Section 4.303.1.2 was amended during an emergency rulemaking in 2015 (2013 CALGreen) to avoid a conflict between Title 20 (Appliance Efficiency Regulations) and CALGreen. The date was required to clarify that the effective date for enforcing the flush volume of 0.125 for urinals was January 1, 2016. However, this date is no longer required in this section since the 2016 CALGreen will be effective on January 1, 2017.

**Section: 4.303.1.4.1 Residential lavatory faucets.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new modification. HCD proposes to repeal the date, which clarifies that Section 4.303.1.4.1 becomes effective on January 1, 2016, and also to change the word “The” to a capital letter T, as it is now the beginning of the sentence.

Section 4.303.1.4.1 was amended during an emergency rulemaking in 2015 (2013 CALGreen) to avoid a conflict between Title 20 (Appliance Efficiency Regulations) and CALGreen. The date was required to clarify that the effective date for enforcing the maximum flow rate of 1.2 gallons per minute for residential lavatory faucets was January 1, 2016. However, this date is no longer required in this section since the 2016 CALGreen will be effective on January 1, 2017.

**Section: 4.303.2 Standards for plumbing fixtures and fittings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification corrects the reference to the applicable standards in the California Plumbing Code (CPC). Currently Section 4.303.2 clarifies that in addition to the CALGreen Code requirements; plumbing fixtures and fittings shall be installed in accordance with the CPC, and shall meet the applicable standards referenced in Table 1401.1 of the CPC. The modification is necessary due to relocation of the referenced standards to Chapter 17 in the CPC. There is no intended change in regulatory effect.

**SECTION 4.304 – OUTDOOR WATER USE**

**Section: 4.304.2 (Formerly 4.304.1) Irrigation controllers.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. HCD proposes to repeal the phrase “provided by the builder,” clarifying that Section 4.304.2 applies when landscape is installed at the time of final inspection of a project regardless of the installer (builder, owner, landscape contractor, etc.).

HCD also proposes to replace the existing note with a reference to the HCD's CALGreen Guide. Currently the note refers to the Irrigation Association for more information regarding irrigation controllers; however, the Irrigation Association is not the only source for obtaining information about irrigation. HCD's research showed that there are dozens of other sources such as California Department of Water Resources, local enforcing agencies, local water purveyors, the Metropolitan Water District of Southern California, the California Landscape Contractors Association, etc.

HCD developed a "Guide to the California Green Building Standards Code", which provides commentary, background, questions and answers (Q&A) and some helpful tools for the code user to better understand the CALGreen Code. HCD believes that the Guide provides adequate information for compliance with this section, and refers to different sources of information, not only the Irrigation Association.

The proposed modification provides clarity to the code user. There is no intended change in regulatory effect.

#### ***Division 4.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY***

### **SECTION 4.408 – CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING**

**Section: 4.408.1 Construction waste management.**

**Section: 4.408.4 Waste stream reduction alternative.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification increases the percentage of diverted nonhazardous construction and demolition waste from 50-percent to 65-percent, moving the existing Tier 1 voluntary measure (65%) to mandatory. This change represents an increase of 15%. Similarly, HCD proposed to reduce the weight of construction waste by 15% per foot in Section 4.408.4 Waste stream reduction alternative, for consistency. HCD also proposes to increase the verification requirements for Tier 1 and Tier 2, and keep the same percentages (65% and 75%). (See rationale for Section A4.408.1.)

The proposed modification (including Tier 1 and Tier 2 proposals) will aid in CalRecycle's statewide recycling goal of 75% for 2020 as stated in AB 341 (Chapter 476, Statutes of 2011).

The CBSC proposed similar amendments during the 2013 Intervening Code Adoption Cycle; however, this proposal was withdrawn. The CALGreen Code Advisory Committee recommended that the CBSC reintroduce this proposal for the 2015 Triennial Code Adoption Cycle. Currently, based upon the information from CalRecycle and local enforcing agencies, 65% is an achievable number.

### **SECTION 4.410 - BUILDING MAINTENANCE AND OPERATION**

**Section: 4.410.1 Operation and maintenance manual.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new modifications. HCD proposes to add "photovoltaic systems" and "electric vehicle chargers" to Item 2, clarifying that operation and maintenance instructions for photovoltaic (PV) systems and EV chargers are required in the manual.

Currently Item 2(a) requires operation and maintenance instructions for equipment and appliances. "Photovoltaic systems" and "electric vehicle chargers" fall under this category; therefore, these are covered by Item 2(a) even though not specifically stated in the text. PV systems and EV chargers are systems that play an important role in many households in California, and their importance is increasing every day. HCD proposes to incorporate these two terms in the existing language in order to provide clarity to code users as to other systems requiring operation and maintenance instructions. There is no intended change in regulatory effect.

**Section: 4.410.2 Recycling by occupants.**

**Rationale:** HCD proposes to adopt the above referenced section. This measure would require developers and/or owners of multifamily buildings with five or more dwelling units on a building site to provide readily accessible area, adequate in size to accommodate containers for depositing, storage and collection of non-hazardous materials (including organic waste) for recycling. This requirement will assist businesses that will be required to meet AB 1826. Multifamily buildings with five or more dwelling units are also defined as businesses in AB 1826.

Section 4.410.2 was initially proposed by the Department of Resources Recycling and Recovery (CalRecycle). Similar language is currently in Section 5.410.1, but without the organic waste.

AB 341 (Chapter 476, Statutes of 2011) set California's statewide recycling goal at 75%, and directs CalRecycle to propose statewide strategies to assist in meeting that goal. Organic materials constitute about 40% of the landfilled

waste and are the primary source of methane emissions from landfills. Providing adequate space for the storage and collection of organic waste would increase overall recycling and reduce emissions of methane, a potent greenhouse gas.

AB 1826 (Chapter 727, Statutes of 2014), requires, as of April 1, 2016, any business (including some multifamily residential buildings) generating eight (8) cubic yards or more of organic waste to arrange for recycling services specific to that waste. The threshold for required service is reduced to four (4) cubic yards of organic waste on January 1, 2017, and to four (4) cubic yards of commercial solid waste effective January 1, 2019.

#### **Division 4.5 – ENVIRONMENTAL QUALITY**

##### **SECTION 4.503 - FIREPLACES**

###### **Section: 4.503.1 General.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to clarify and update the title of the U.S. EPA emission standards, and to clarify that woodstoves or pellet stoves are required to have a permanent label indicating they are certified to meet the emission limits. The proposed modification provides clarity to the code user and consistency with the U.S. EPA New Source Performance Standards (NSPS). There is no intended change in regulatory effect.

##### **SECTION 4.504 - POLLUTANT CONTROL**

###### **Section: 4.504.2.3 Aerosol paints and coatings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with new editorial modification. The proposed modification provides the code user with the correct reference to the California Code of Regulations, Title 17. The modification to the existing language is necessary due to changes in Title 17. There is no intended change in regulatory effect.

###### **Tables: 4.504.1 ADHESIVE VOC LIMIT**

###### **4.504.2 SEALANT VOC LIMIT**

###### **4.504.3 VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS**

**Rationale:** HCD proposes to continue adoption of the above referenced Tables with editorial modifications. There is no intended change in regulatory effect.

###### **Section: 4.504.5 Composite wood products.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. Currently Section 4.504.5.1 requires a verification of compliance with Section 4.504; Item 4 provides the US, Australian and European standards for exterior grade products. HCD proposes to add four Canadian standards (CSA O121, CSA O151, CSA O153, CSA O325), which is another option for compliance with this section. This proposal was suggested by the California Air Resources Board. There is no intended change in regulatory effect.

##### **SECTION 4.507 - ENVIRONMENTAL COMFORT**

###### **Section: 4.507.2 Heating and air-conditioning system design.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. The references to ANSI/ACCA 2 Manual J, ANSI/ACCA 1 Manual D, and ANSI/ACCA 3 Manual S are updated to the most recent standards, approved by ANSI. There is no intended change in regulatory effect.

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#### **4. CHAPTER 6 REFERENCED ORGANIZATIONS AND STANDARDS**

HCD proposes to continue adoption of Chapter 6 from the 2013 CALGreen Code into the 2016 CALGreen Code with modifications as follows:

###### **Section: 601.1**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. Some standard references are updated to the most current standards, approved by the applicable organization. There is no intended change in regulatory effect.

## 5. APPENDIX A4 RESIDENTIAL VOLUNTARY MEASURES

### *Division A4.1 – PLANNING AND DESIGN*

#### SECTION A4.106 - SITE DEVELOPMENT

**Tables:**           **A4.106.5.1(1) TIER 1- LOW-RISE RESIDENTIAL**  
                          **A4.106.5.1(3) TIER 1- HIGH-RISE RESIDENTIAL BUILDINGS, HOTELS, AND MOTELS**

**Rationale:** HCD proposes to continue adoption of the above referenced tables with modifications. The proposed modifications are intended to align the values in Tables A4.106.5.1(1) and A4.106.5.1(3) with the prescriptive requirements in the California Energy Code. At the time of development of this document the new proposals for the 2016 California Energy Code are pending approval; changes to the original proposals are possible. Therefore, further coordination with the California Energy Commission may be necessary.

**Section:**           **A4.106.8.2 New multifamily dwellings.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to replace the term “EV charging stations” with “EV charging spaces” since the term “EV charging space” better describes a space available for future installation of EVSE, but with no EV charger installed. The proposed modification in terminology aligns with the terminology used by DSA in Chapter 11B of the California Building Code. (See also the definition of “EV charging space” in Chapter 2 of CALGreen.)

HCD also proposes to repeal the requirement for identification of EVCS on the construction documents. The same requirement is addressed in Section 4.106.4.2.1; there is no reason for the same requirement to be duplicated. HCD additionally proposes to update the website address in note 1.

The proposed modifications provide clarity to the code user. There is no intended change in regulatory effect.

### *Division A4.3 – WATER EFFICIENCY AND CONSERVATION*

#### SECTION A4.303 INDOOR WATER USE

**Section:**           **A4.303.3 Appliances.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to keep the reference to the ENERGY STAR program for dishwashers and clothes washers, but repeal the requirement for maximum water use. HCD also proposes an editorial modification to this section.

The ENERGY STAR is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect the climate through superior energy efficiency. Currently Section A4.303.3 provides an elective measure for appliances, which, if adopted by a jurisdiction or chosen by a builder, would require at least one appliance (dishwasher or clothes washer) to be ENERGY STAR with specified maximum allowed water use.

HCD proposes repeal the requirement for water use because it is part of the criteria required for these products to earn the ENERGY STAR certificate. Without duplicating the water use requirements in CALGreen, if the ENERGY STAR criteria are changed, Section A4.303 3 will automatically refer to the new ENERGY STAR requirement without the need of further modification of CALGreen.

The proposed modification provides clarity to the code users and consistency with the ENERGY STAR program. There is no intended change in regulatory effect.

**Section:**           **A4.303.4 Nonwater supplied urinals and waterless toilets.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to incorporate language, clarifying that hybrid urinals are considered waterless urinals.

The hybrid urinal is a new product currently on the market. These urinals operate as nonwater urinals, but are connected to a water line. The hybrid urinals are able to use a water hook-up for the purpose of flushing, but do not require water to do so. Like waterless urinals, they rely on gravity to bring fluids down into the filter system; but use the water supply line at regular intervals to rinse the inside of the urinal bowl. The proposed modification is consistent with the CBSC proposal in Appendix A5.

**Section: A4.303.5 Hot water recirculation systems.**

**Rationale:** HCD proposes to adopt the above referenced section as an elective measure for water conservation. The amount of potable water wasted while waiting for hot water to arrive to the point of use in a sink or other plumbing fixture, depends upon numerous factors – the distance between the point of use and the water heater, the water heater temperature setting, the location of the fixtures, internal pipe diameter, effective length, pipe insulation and user behavior. The Department of Energy estimates that 3,600 to 12,000 gallons of water per year can be saved by the typical household with four points of hot water use.

When energy used to treat municipal water, pump it to households, and then treat wastewater is factored in, the Department of Energy estimates that energy savings per the same household of four range from 800 to 1,600 kilowatt-hours per year.

Demand hot water recirculation systems typically cost \$200 to \$350 up front and cost only \$27 per year in electricity or \$15 a year in natural gas to operate.

**SECTION A4.304 - OUTDOOR WATER USE**

**Section: A4.304.2 Potable water elimination.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. HCD proposes to repeal the phrase “by the builder,” clarifying that Section A3.304.2 applies whenever landscape is provided regardless of whether installed by the builder or the owner.

***Division A4.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY***

**SECTION A4.404 - EFFICIENT FRAMING TECHNIQUES**

**Section: A4.404.1 Lumber size**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification provides a reference to Chapter 23 of the California Building Code, and Chapter 6 of the California Residential Code. Currently Section A4.404.1 refers to the California Residential Code, Tables R502.5(1) and R502.5(2), for size and installation requirements for beams, headers, and trimmers. However, the span tables of Chapter 5 have been moved into Chapter 6, Tables R602.7(1) and 602.7(2). HCD proposes to repeal the reference to the tables, and refer to Chapter 6 instead. This proposal is intended to avoid incorrect section references when the International Code Council (ICC) makes changes to the model codes. When Section A4.404.1 was developed, CALGreen applied to low-rise residential buildings only. During the 2012 Triennial Code Adoption Cycle, the application was expanded to include high-rise residential buildings. However, Section A4.404.1 was not corrected; therefore, high-rise residential buildings are currently not covered. HCD proposes to correct the oversight by referring to the California Building Code, Chapter 23, for size and installation requirements for beams, headers, and trimmers for residential buildings that do not fall under the scope and application of the California Residential Code.

**Section: A4.404.2 Dimensions and layouts.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification. The proposed modification adds a title (Dimensions and layouts) to the section number, providing clarity and consistency with other sections of CALGreen. There is no intended change in regulatory effect.

**SECTION A4.405 - MATERIAL SOURCES**

**Section: A4.405.3.1.1 Total material cost.**

**Rationale:** HCD proposes to continue adoption of the above referenced table with modification. HCD proposes to repeal Table A4.405.3, and incorporate new language referring to the ICC Building Valuation Data (BVD) or other valuation data approved by the local enforcing agency.

Currently Table A4.405.3 provides the square foot construction cost for one- and two-family dwellings, and multifamily dwellings, pursuant to the International Code Council’s (ICC) Building Valuation Data. However, the BVD codified in the 2013 CALGreen is already outdated because it was published in February 2011. ICC updates its BVD every six months; therefore, it is not possible for HCD to keep the data in CALGreen current with 18 months adoption cycle. Instead maintaining the ICC tables in CALGreen, HCD proposes to provide a reference to the ICC data base, or other data approved by the local enforcing agency.

**Sections: A4.405.3.1.3 Determination of recycled content value of materials (RCV<sub>M</sub>). (Note 2)  
A4.405.3.1.4 Determination of recycled content value of assemblies (RCV<sub>A</sub>). (Note)**

**Rationale:** HCD proposes to adopt the above referenced sections with modifications. HCD proposes to modify the notes, clarifying that the total recycled content shall be considered preconsumer when the manufacturer reports the total recycled content of a material as one percentage, in lieu of separately reporting preconsumer and postconsumer values. Currently the notes allow the total recycled content to be calculated as 50-percent preconsumer and 50-percent postconsumer when not reported separately by the manufacturer. The proposed modification is intended to encourage manufacturers to designate and report the recycled content in materials as preconsumer and postconsumer, and to provide additional benefits for manufacturers using only postconsumer recycled content in their products.

**SECTION A4.408 - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING**

**Section: A4.408.1 Enhanced construction waste reduction.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modifications. The proposed modification increases the verification requirements for Tier 1 and Tier 2, and keeps the same percentages (65% and 75%) for construction waste reduction.

Additional verification requirements for Tier 1 and Tier 2, as a voluntary measures, will aid in CalRecycle's statewide recycling goal at 75% for 2020 as stated in AB 341 (Chapter 476, Statutes of 2011). HCD also proposes to increase the percentage of nonhazardous construction and demolition waste from 50-percent to 65-percent, moving the existing Tier 1 voluntary measure (65%) to mandatory. (See the rationale for Section 4.408.1)

**Division A4.6 – TIER I AND TIER 2**

**SECTION A4.601 - GENERAL**

**Section: A4.601.4.2 Prerequisite and elective measures for Tier 1.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification in Item 3. The proposed modification changes the requirements for achieving Tier 1 status.

Until June 1, 2015, when the emergency proposal for outdoor irrigation was adopted (in 2013 CALGreen), Section A4.601.4.2 required compliance with two prerequisites and two elective measures for residential buildings to achieve Tier 1 status. As part of the emergency rulemaking, the requirement for water budget (prerequisite) was moved to Chapter 4 as mandatory, and Section A4.304.4 (prerequisite), mandating potable water use reduction, was repealed. As a result, currently Tier 1 can be achieved with two electives only.

HCD proposes to increase the required number of electives from two to three in order to provide more opportunities for jurisdictions, builders, and/or owners to conserve water. The proposed modification is consistent with the Governor's Executive Order B-29-15, issued on April 1, 2015.

**Section: A4.601.5.2 Prerequisite and elective measures for Tier 2.**

**Rationale:** HCD proposes to continue adoption of the above referenced section with modification in Item 3. The proposed modification changes the requirements for achieving Tier 2 status.

Until June 1, 2015, when the emergency proposal for outdoor irrigation was adopted (in 2013 CALGreen), Section A4.601.5.2 required compliance with two prerequisites and three elective measures for residential buildings to achieve Tier 2 status. As part of the emergency rulemaking, the requirement for water budget (prerequisite) was moved to Chapter 4 as mandatory, and Section A4.304.4 (prerequisite), mandating potable water use reduction, was repealed. As a result, currently Tier 2 can be achieved with two electives only.

HCD proposes to increase the required number of electives from three to four in order to provide more opportunities for jurisdictions, builders, and/or owners to conserve water. The proposed modification is consistent with the Governor's Executive Order B-29-15, issued on April 1, 2015.

**Section: A4.602 RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST**

**Rationale:** HCD proposes to adopt the above referenced section with modification. HCD proposes to modify the language in the application checklist to align with the modifications proposed to other sections in the 2016 CALGreen. There is no intended change in regulatory effect.

**TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENTS:**

(Government Code Section 11346.2(b)(3) requires an identification of each technical, theoretical, and empirical study, report, or similar document, if any, upon which the agency relies in proposing the regulation(s).

None.

**STATEMENT OF JUSTIFICATION FOR PRESCRIPTIVE STANDARDS:**

(Government Code Section 11346.2(b)(1) requires a statement of the reasons why an agency believes any mandates for specific technologies or equipment or prescriptive standards are required.)

HCD is statutorily required to adopt by reference model building codes, which contain prescriptive standards. Prescriptive standards provide the following: explicit guidance for certain mandated requirements; consistent application and enforcement of building standards while also establishing clear design parameters; and ensure compliance with minimum health, safety and welfare standards for owners, occupants and guests.

Performance standards are permitted by state law; however, they must be demonstrated to the satisfaction of the proper enforcing agency.

**CONSIDERATION OF REASONABLE ALTERNATIVES**

(Government Code Section 11346.2(b)(4)(A) requires a description of reasonable alternatives to the regulation and the agency's reasons for rejecting those alternatives. In the case of a regulation that would mandate the use of specific technologies or equipment or prescribe specific action or procedures, the imposition of performance standards shall be considered as an alternate. It is not the intent of this paragraph to require the agency to artificially construct alternatives or describe unreasonable alternatives.)

None. There were no alternatives available to HCD. HCD is required by statute to adopt model codes by reference, however, there are no model codes addressing green building standards specific to California.

**REASONABLE ALTERNATIVES THE AGENCY HAS IDENTIFIED THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS.**

(Government Code Section 11346.2(b)(4)(B) requires a description of any reasonable alternatives that have been identified or that have otherwise been identified and brought to the attention of the agency that would lessen any adverse impact on small business.)

HCD has determined that this regulatory action would have no significant adverse economic impact on California business enterprises and individuals, including the ability of California businesses to compete with businesses in other states.

**FACTS, EVIDENCE, DOCUMENTS, TESTIMONY, OR OTHER EVIDENCE OF NO SIGNIFICANT ADVERSE IMPACT ON BUSINESS.**

(Government Code Section 11346.2(b)(5)(A) requires the facts, evidence, documents, testimony, or other evidence on which the agency relies to support an initial determination that the action will not have a significant adverse economic impact on business.)

None.

**ASSESSMENT OF EFFECT OF REGULATIONS UPON JOBS AND BUSINESS EXPANSION, ELIMINATION OR CREATION.**

(Government Code Sections 11346.3(b)(1) and 11346.5(a)(10)).

HCD has assessed whether or not and to what extent this proposal will affect the following:

- The creation or elimination of jobs within the State of California.

**These regulations will not affect the creation, or cause the elimination, of jobs within the State of California.**

- The creation of new businesses or the elimination of existing businesses within the State of California.

**These regulations will not affect the creation or the elimination of existing business within the State of California.**

- The expansion of businesses currently doing business with the State of California.

**These regulations will not affect the expansion of businesses currently doing business within the State of California.**

- The benefits of the regulations to the health and welfare of California residents, worker safety, and the state's environment.

**These regulations will update and improve minimum existing building standards, which will provide increased protection of public health and safety, worker safety and the environment.**

## **ESTIMATED COST OF COMPLIANCE, ESTIMATED POTENTIAL BENEFITS, AND RELATED ASSUMPTIONS USED FOR BUILDING STANDARDS**

(Government Code Section 11346.2(b)(5)(B)(i) states if a proposed regulation is a building standard, the initial statement of reasons shall include the estimated cost of compliance, the estimated potential benefits, and the related assumptions used to determine the estimates.)

- No increased cost of compliance for those regulations.
- The potential benefits include, but are not limited to:
  - Continue to reduce greenhouse gas (GHG) emissions.
  - Continue the Administration's directive to adopt green building standards for residential, commercial, and public building construction as part of the building code adoption process.
  - Protection of public health and safety.
  - Environmental benefits through reduced use of energy, water, and raw materials; improved public and building occupant health due to improved indoor air quality; and overall reduction in detrimental environmental impacts.
  - General welfare of California residents.

## **DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

(Government Code Section 11346.2(b)(6) requires a department, board, or commission within the Environmental Protection Agency, the Resources Agency, or the Office of the State Fire Marshal to describe its efforts, in connection with a proposed rulemaking action, to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues. These agencies may adopt regulations different from these federal regulations upon a finding of one or more of the following justifications: (A) The differing state regulations are authorized by law and/or (B) The cost of differing state regulations is justified by the benefit to human health, public safety, public welfare, or the environment.)

These regulations do not duplicate nor conflict with federal regulations. The State of California has preemptive authority to adopt more restrictive mandatory standards for the appliances addressed in these regulations.