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| Version Number | Date created | Describe Changes |
| 1 | 8/25/2025 | Recitals and findings from V1.0 of TRC CalGreen model ordinance and V1.1 of LEC Part 6 model ordinance (includes section numbering typo corrected and removed sentence from 150.2(b)3 |

**Template for Existing Building Reach Codes Model Ordinance Language V1.0**

**ORDINANCE NO. \_\_\_\_\_\_\_\_\_**

**AN ORDINANCE OF THE [GOVERNING BODY]**

**OF THE [CITY/TOWN/COUNTY] OF [JURISDICTION]**

**AMENDING [IDENTIFY SUBPARTS, INCLUDING CHAPTERS, DIVISIONS, ETC.\_\_\_\_\_\_\_ AND \_\_\_\_\_\_\_\_ OF THE [JURISDICTION] CODE] TO ADOPT A LOCAL “REACH” CODE AND ADOPTING FINDINGS JUSTIFYING THE LOCAL AMENDMENTS TO THE 2025 CALIFORNIA ENERGY CODE**

**WHEREAS,** California Health and Safety Code section 17958 requires that cities adopt building regulations that are substantially the same as those adopted by the California Building Standards Commission and contained in the 2025 California Building Standards Code; and

**WHEREAS,** the 2025 California Energy Code is Part 6 of the 2025 California Building Standards Code which implements minimum energy efficiency standards in buildings through mandatory requirements, prescriptive standards, and performance standards; and

**WHEREAS,** California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5 provide that the [Jurisdiction] may make changes or modifications to the building standards contained in the 2025 California Building Standards Code based upon express findings that such changes or modifications are reasonably necessary because of local climatic, geological or topographical conditions; and

**WHEREAS,** human activities that release greenhouse gasses into the atmosphere contribute to the increase of the worldwide average temperature, drought conditions, and duration of fire seasons; and

**WHEREAS,** according to the California Department of Forestry and Fire Protection, nine of the ten largest wildfires in California history have occurred since 2017, destroying nearly 10,000 structures and burning of more than 4.5 million acres; and

**WHEREAS,** the [Jurisdiction] is situated along a wildland-urban interface and as a result is extremely vulnerable to wildfires and firestorms; and

**WHEREAS,** this Chapter is reasonably necessary because of health and safety concerns as [Jurisdiction] residents suffer from asthma and other health conditions associated with poor indoor and outdoor air quality exacerbated by the combustion of methane gas; and

**WHEREAS**, removing gas appliances from indoor environments reduces the risk of asthma associated with gas appliances, and removing combustible gas from structures aids in fire hardening and removes a known hazard during firefighting efforts; and

**WHEREAS,** on or about September 20, 2016, the State of California enacted Senate Bill (SB) 32, which added Health and Safety Code Section 38566 to require greenhouse gas emissions to be reduced to 40 percent below 1990 levels by no later than December 31, 2030; and

**WHEREAS,** pursuant to Sections 17958.5 and 17958.7 of the Health and Safety Code, the proposed amendments meet the following conditions to demonstrate local amendments are necessary: the changes are substantially equivalent to 2022 code amendment changes, the changes are necessary to align local building codes with General Plan and CAP goals while permitting mixed-fuel residential construction and incentivizing electric construction; and

**WHEREAS,** on [date], the [Governing Body] adopted the [Jurisdiction’s] General Plan which includes [relevant general plan targets and goals such as GHG emissions reductions, efficient buildings]; and

**WHEREAS,** on [date], the [Governing Body] found and determined that amendments to the 2022 Energy Code were cost effective, would result in buildings designed to consume less energy than permitted by previous editions of the Energy Code, and were necessary because of local climatic, geological, or topographical conditions, and [Governing Body] finds and determines the conditions persist and it is necessary to adopt substantially equivalent amendments to the 2025 Energy Code; and

**WHEREAS,** on [date], the [Governing Body] adopted the [Jurisdiction’s] Climate Action Plan which included [relevant CAP details around green reduction in buildings]; and

**WHEREAS,** consistent General Plan[‘s requirements for the Climate Action Plan], the local amendments to the 2025 California Energy Code establish requirements for [single-family, multifamily, and nonresidential] structures which will reduce demands for local energy resources, reduce regional pollution, and promote a lower contribution to greenhouse gas emissions; and

**WHEREAS,** Public Resources Code Section 25402.1(h)2 and Section 10-106 of the 2025 California Administrative Code establish a process which allows local adoption of energy standards that are more stringent than the statewide Standards, provided that a determination that the standards are cost effective is adopted at a public meeting and subsequently filed with the California Energy Commission, and the California Energy Commission finds that the standards will require buildings to be designed to consume less energy than permitted by the 2025 California Energy Code; and

**WHEREAS,** [Governing Body] of [Jurisdiction] has determined the cost effectiveness studies prepared by the California Statewide Codes and Standards Reach Code Program and associated study data are sufficient to illustrate that the standards contained in this ordinance are cost effective and will require buildings to be designed to consume less energy than permitted by the 2025 California Energy Code; and

**WHEREAS,** the content and details of this ordinance were the subject of a public stakeholder workshop conducted on [Date], which included attendees such as architects, energy modelers, designers, builders, developers, and residents; and

**WHEREAS,** based upon these analyses, the [Governing Body] of [Jurisdiction] finds that the local amendments to the California Energy Code contained in this ordinance have at least one cost effective pathway; and

**WHEREAS,** scientific evidence has established that methane gas combustion, procurement and transportation produce significant greenhouse gas emissions that contribute to global warming and climate change; and

**WHEREAS,** using electric appliances in buildings fueled by less greenhouse gas intensive electricity is linked to significantly lower greenhouse gas emissions and is cost competitive because of the cost savings associated with avoiding new gas infrastructure; and

**WHEREAS,** the most cost-effective time to improve the energy efficiency of existing buildings is during significant alterations and additions, allowing for electrical infrastructure that is installed alongside other significant improvements; and

**WHEREAS,** that, pursuant to the Public Resources Code section 25402.1(h)(2) and Section 10-106 of the 2025 California Administrative Code, the [Governing Body] of [Jurisdiction] finds and determinesthe following: (1) The locally adopted energy efficiency standards contained in this ordinance are cost-effective, and (2) the efficiency standards in this ordinance will require buildings to be designed to consume less energy compared to the 2025 California Energy Code; and

**WHEREAS,** that, pursuant to California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5, the [Jurisdiction] finds and determines that amendment and additions to the code are reasonably necessary because of the [Jurisdiction’s] unique local climatic, geologic and topographic conditions ; and

**THEREFORE, BE IT ORDAINED,** by the [Governing Body] of [Jurisdiction] as follows:

1. Incorporation of Recitals. The foregoing recitals are found to be true and correct, and are incorporated by this reference into this action;
2. Purpose. It is the purpose and intent of this Ordinance to establish standards for [single-family residential retrofits including major additions and alterations] that exceed minimum 2025 Title 24 Part 6 requirements.
3. Adoption. The local amendments to the [chapter, section, or part of local Building Code] as specified below are hereby adopted by the [Governing Body] of [Jurisdiction] to be codified under [relevant municipal statutes]. The [Governing Body] of [Jurisdiction] adopts the Recitals herein as separate and additional findings of fact in support of adoption of the ordinance.
4. Severability. If any word, phrase, sentence part, section, subsection or other portion of this amendment or any application thereof to any person or circumstance is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the prescribed application thereof, shall be severable, and the remaining provisions of this amendment, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect.
5. Findings. The [Governing Body] of [Jurisdiction] finds that each of the changes or modifications to measures referred to therein are reasonably necessary because of local climatic, geological, or topographical conditions in the area encompassed by the boundaries of the [Jurisdiction], and the [Governing Body] adopts the following findings in support of local necessity for the changes or modifications:
6. [Jurisdiction] is along a wildland-urban interface which experiences more fire fueled by greenhouse gas emissions from humans.
7. [Jurisdiction] has a history of flooding disasters that occurred in YYYY, YYYY, and YYYY and decreasing greenhouse gas emissions will prevent increases in severity or duration of flooding disasters.
8. During flooding events, stormwater inundated the wastewater treatment system in YYYY and YYYY. To the extent that climate change has the potential to make these conditions worse, more restrictive Energy Code requirements to achieve reduced greenhouse gas emissions are necessary.
9. [Jurisdiction] has a history of wildfire disasters that occurred in YYYY, YYYY, and YYYY and decreasing greenhouse gas emissions will prevent increases in severity or duration of wildfire disasters. Therefore, the above-described findings support the imposition of measures to increase the efficiency of existing buildings in the [Jurisdiction] to reduce greenhouse gas emissions.
10. Failure to address and substantially reduce greenhouse gas emissions creates an increased risk to the health, safety, and welfare of [Jurisdiction] residents.
11. Pursuant to the Public Resources Code section 25402.1(h)(2) and Section 10-106 of the 2025 California Administrative Code, the [Governing Body] of [Jurisdiction] finds and determines the following: (1) The locally adopted energy efficiency standards contained in this ordinance are cost-effective, and (2) the efficiency standards in this ordinance will require buildings to be designed to consume less energy compared to the 2025 California Energy Code.
12. Pursuant to Sections 17958.5 and 17958.7 of the Health and Safety Code, the proposed amendments meet the following conditions to demonstrate local amendments are necessary: the changes are substantially equivalent to 2022 code amendment changes, the changes are necessary to align local building codes with General Plan and CAP goals while permitting mixed-fuel residential construction and incentivizing electric construction.
13. The standards imposed by this Ordinance are necessary because these standards align with the General Plan policy that directs the City to [reduce GHG emissions, improve building emissions, include general plan language here].
14. The standards imposed by this Ordinance are substantially equivalent to changes or modifications that were previously passed by [Governing Body] on [adoption date] and previously filed on [BSC filing date] and were in effect as of September 30, 2025.
15. The standards imposed by this Ordinance are necessary because changes to the State code must be made in order to implement the [General Plan, Emissions Reductions Strategy, Air Quality goals, etc.].
16. The standards imposed by this Ordinance are necessary because they meet the policy requirements of [Jurisdiction’s] Climate Action Plan or Greenhouse Gas Reduction Strategy.
17. The standards imposed by this Ordinance are necessary because of local climatic, geological, or topographical conditions evidenced above and are cost-effective, as supported by the 2025 Statewide Cost Effectiveness Study prepared by the California Energy Codes and Standards Statewide Utility Program. Specifically, the [Jurisdiction] finds that there are at least [three] cost effective measure packages:
    * 1. Package 1, installing the efficiency measure of R-30 Floor Insulation would save energy relative to the base code and would achieve a benefit to cost ratio of 2.3 on an on-bill basis.
      2. Package 2, installing the efficiency measure of RI-19 Floor Insulation would save energy relative to the base code and would achieve a benefit to cost ratio of 2.3 on an on-bill basis.
      3. Package 3 Package 3 to installing a Heat Pump Water Heater (HPWH), would save energy relative to the base code and would achieve a benefit to cost ratio of 1.6 on a “Long-term System Cost” (LSC basis).
18. CEQA. This ordinance is categorically exempt from CEQA because it is an action taken by a regulatory agency for the purpose of protecting the environment (CEQA Guidelines Section 15308). In addition, this ordinance is exempt from CEQA under the general rule, 15061(b)(3), on the grounds that these standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse impacts, and there is no possibility that the activity in question may have a significant effect on the environment. The following findings are made in support of these determinations:
19. The purpose of the implementation of a Reach Code is to reduce the amount of greenhouse gas emissions in the [Jurisdiction] that are produced from buildings.
20. The Reach Code approval process requires that the [Jurisdiction] determines that the local standards will require buildings to be designed to consume less energy than current statewide requirements. Furthermore, the California Energy Commission approval process requires that the [Jurisdiction] make the findings as part of its approval process. Therefore, the Reach Code standards can only go into effect if they protect the environment by making buildings more efficient.
21. .Violations. Violation of the requirements of this Ordinance shall be considered, at the [Jurisdiction’s] election, an infraction of the [Jurisdiction’s Municipal Code] punishable by all sanctions prescribed in [Chapter Y], or an administrative violation punishable as provided under [Chapter X].
22. Effective Date. This ordinance shall become effective as of January 1, 2026, upon approval of the California Energy Commission, or upon the date the California Building Standards Commission (CBSC) accepts the ordinance for filing, whichever is later.
23. Ordinance Summary. A summary of this ordinance, together with the names of [Governing Body] members voting for and against, shall be published at least XX days prior to its final passage, in [local publication], a newspaper published and circulated in [Jurisdiction]. This ordinance shall go into effect at the expiration of [thirty (30) days] after its final passage.

**THEREFORE,**  the Chapter [cite local code section] of the[local jurisdiction municipal/county code], adoption of the 2025 California Energy Code, Title 24, Part 6, is hereby amended as follows:

1. Section 150.2(b)1C is hereby amended to read:

C. **Entirely** **new or complete replacement space-conditioning systems** installed as part of an alteration, shall include all the system heating or cooling equipment, including but not limited to: condensing unit cooling or heating coil, and air handler for split systems; or complete replacement of a packaged unit; plus entirely new or replacement duct system (Section 150.2(b)1Diia). Entirely new or complete replacement space-conditioning systems shall meet the requirements of Sections 150.0(h), 150.0(i), 150.0(j)1, 150.0(j)2, 150.0(m)1 through 150.0(m)10; 150.0(m)12; 150.0(m)13, 150.1(c)7, ~~150.2(b)1Fii,~~ 150.2(b)1G, and TABLE 150.2-A. Additionally, where an entirely new or complete replacement space conditioning system includes a new or replacement air-cooled air conditioner in Climate Zones 1 through 14 and 16, it shall meet the applicable requirements of Section 150.2(b)1Fiv. Where an entirely new or complete replacement space conditioning system includes a new or replacement heat pump, it shall meet the applicable requirements of Section 150.2(b)1Fv.

2. Section 150.2(b)1F is hereby amended to read:

F. **Altered space-conditioning system - mechanical cooling.** Alterations which install new or replacement air-cooled air conditioners shall meet the applicable requirements of subsections i and iv. Alterations which install new or replacement heat pumps shall meet the applicable requirements of subsections i, ii, iii, and v. All other alterations to refrigerant containing components such as the compressor, condensing coil, evaporator coil, refrigerant metering device, or refrigerant piping, shall meet the applicable requirements of subsections i, ii, and iii. ~~When a space-conditioning system is an air conditioner or heat pump that is altered by the installation or replacement of refrigerant-containing system components such as the compressor, condensing coil, evaporator coil, refrigerant metering device or refrigerant piping, the altered system shall comply with the following requirements:~~

i. All thermostats associated with the system shall be replaced with setback thermostats meeting the requirements of Section 110.2(c).

ii. Air-cooled air conditioners in Climate Zones 2 and 8 through 15 and air-source heat pumps in all climate zones, including but not limited to ducted split systems, ducted package systems, small duct high velocity air systems, and minisplit systems, shall comply with Subsections a and b, unless the system is of a type that cannot be verified using the specified procedures. Systems that cannot comply with the requirements of 150.2(b)1Fii shall comply with Section 150.2(b)1Fiii.

**Exception to Section 150.2(b)1Fii:** Entirely new or complete replacementpackaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiia, provided that the system is of a type that can be verified using the procedure specified in RA3.3 or an approved alternative in RA1.

a. Minimum system airflow rate shall comply with the applicable Subsection I or II below as confirmed through field verification and diagnostic testing in accordance with the procedures specified in Reference Residential Appendix Section RA3.3 or an approved alternative procedure as specified in Section RA1.

I. Small duct high velocity systems shall demonstrate a minimum system airflow rate greater than or equal to 250 cfm per ton of nominal cooling capacity; or

II. All other air-cooled air conditioner or air-source heat pump systems shall demonstrate a minimum system airflow rate greater than or equal to 300 cfm per ton of nominal cooling capacity; and

**Exception 1 to Section 150.2(b)1Fiia**: Systems unable to comply with the minimum airflow rate requirement shall demonstrate compliance using the procedures in Section RA3.3.3.1.5; and the system's thermostat shall conform to the specifications in Section 110.12.

**Exception 2 to Section 150.2(b)1Fiia:** Entirely new or complete replacement space conditioning systems, as specified by Section 150.2(b)1C, without zoning dampers may comply with the minimum airflow rate by meeting the applicable requirements in Tables-150.0-B or 150.0-C as confirmed by field verification and diagnostic testing in accordance with the procedures in Reference Residential Appendix Section RA3.1.4.4 and RA3.1.4.5. The design clean-filter pressure drop requirements of Section 150.0(m)12C for the system air filter device(s) shall conform to the requirements given in Tables150.0-B and 150.0-C.

b. The installer shall charge the system according to manufacturer’s specifications. Refrigerant charge shall be verified according to one of the following options, as applicable.

I. The installer and rater shall perform the standard charge verification procedure as specified in Reference Residential Appendix Section RA3.2.2, or an approved alternative procedure as specified in Section RA1; or

II. The installer shall perform the weigh-in charging procedure as specified by Reference Residential Appendix Section RA3.2.3.1 provided the system is of a type that can be verified using the RA3.2.2 standard charge verification procedure and RA3.3 airflow rate verification procedure or approved alternatives in RA1. The ECC-Rater shall verify the charge using RA3.2.2 and RA3.3 or approved alternatives in RA1.

**Exception 1 to Section 150.2(b)1Fiib**: When the outdoor temperature is less than 55° F and the installer utilizes the weigh-in charging procedure in Reference Residential Appendix Section RA3.2.3.1to demonstrate compliance, the installer may elect to utilize the verification procedure in Reference Residential Appendix Section RA3.2.3.2. If the verification procedure in Section RA3.2.3.2 is used for compliance, the system's thermostat shall conform to the specifications in Section 110.12. Ducted systems shall comply with the minimum system airflow rate requirements in Section 150.2(b)1Fiia.

iii. Air-cooled air conditioners in Climate Zones 2 and 8 through 15 and air-source heat pumps in all climate zones, including but not limited to ducted split systems, ducted package systems, small duct high velocity, and minisplit systems, which are of a type that cannot comply with the requirements of 150.2(b)1Fiib shall comply with subsections a and b, as applicable.

a. The installer shall confirm the refrigerant charge using the weigh-in charging procedure specified in Reference Residential Appendix Section RA3.2.3.1, as verified by an ECC-Rater according to the procedures specified in Reference Residential Appendix RA3.2.3.2; and

b. Systems that utilize forced air ducts shall comply with the minimum system airflow rate requirement in Section 150.2(b)1Fiia provided the system is of a type that can be verified using the procedures in Section RA3.3 or an approved alternative procedure in Section RA1.

**Exception to Section 150.2(b)1Fiii:** Entirely new or complete replacementpackaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiiib, provided that the system is of a type that can be verified using the procedure specified in Section RA3.3 or an approved alternative in Section RA1.

iv. New or replacement air-cooled air conditioners in Climate Zones 1 through 14 and 16 shall meet the requirements of Section 150.2(b)1Fiva or 150.2(b)1Fivb.

a. Systems with existing duct distribution systems shall meet the following requirements:

I. In all climate zones, meet the airflow and fan efficacy requirements of Section 150.0(m)13B, 150.0(m)13C, or 150.0(m)13D.

**Exception 1 to Section 150.2(b)1FivaI:** Single zone central forced air systems and zonally controlled central forced air systems may demonstrate compliance with an airflow greater than or equal to 300 CFM per ton of nominal cooling capacity.

II. In all climate zones, meet the refrigerant charge verification requirements of Section 150.2(b)1Fii; and

III. In all climate zones, vented attics shall have insulation installed to achieve a U-factor of 0.020 or insulation installed at the ceiling level shall result in an insulated thermal resistance of R-49 or greater for the insulation alone; luminaires not rated for insulation contact must be replaced or retrofitted with a fireproof cover that allows for insulation to be installed directly over the cover; and

**Exception 1 to Section 150.2(b)1FivaIII:** Dwelling units with at least R-38 existing insulation installed at the ceiling level.

**Exception 2 to Section 150.2(b)1FivaIII:** Dwelling units where the alteration would directly cause the disturbance of asbestos unless the alteration is made in conjunction with asbestos abatement.

**Exception 3 to Section 150.2(b)1FivaIII:** Dwelling units with knob and tube wiring located in the vented attic.

**Exception 4 to Section 150.2(b)1FivaIII:** Where the accessible space in the attic is not large enough to accommodate the required R-value, the entire accessible space shall be filled with insulation provided such installation does not violate Section 806.3 of Title 24, Part 2.5.

**Exception 5 to Section 150.2(b)1FivaIII:** Where the attic space above the altered dwelling unit is shared with other dwelling units and the requirements of Section 150.2(b)1FivaIII are not triggered for the other dwelling units.

IV. In all climate zones, air seal all accessible areas of the ceiling plane between the attic and the conditioned space in accordance with Section 110.7.

**Exception 1 to Section 150.2(b)1FivaIV:** Dwelling units with at least R-38 existing insulation installed at the ceiling level.

**Exception 2 to Section 150.2(b)1FivaIV:** Dwelling units where the alteration would directly cause the disturbance of asbestos unless the alteration is made in conjunction with asbestos abatement.

**Exception 3 to Section 150.2(b)1FivaIV:** Dwelling units with atmospherically vented space heating or water heating combustion appliances located inside the pressure boundary of the dwelling unit.

b. Systems with entirely new or complete replacement duct systems shall meet the following:

I. R-8 duct insulation shall be installed for all new ducts located in unconditioned space; and

II. In all climate zones, meet the airflow requirements of Section 150.0(m)13B, 150.0(m)13C, or 150.0(m)13D and demonstrate an air-handling unit fan efficacy of less than or equal to 0.35 W/CFM.

III. In all climate zones, meet the refrigerant charge verification requirements of Section 150.2(b)1Fii;

**Exception 1 to Section 150.2(b)1Fiv:** Where the capacity of the existing main electrical service panel is insufficient to supply the electrical capacity of a heat pump and where the existing main electrical service panel is sufficient to supply a new or replacement air conditioner, as calculated according to the requirements of California Electrical Code Article 220.83 or Article 220.87, systems shall comply with the applicable requirements of Sections 150.2(b)1Fi, 150.2(b)1Fii, and 150.2(b)1Fiii. Documentation of electrical load calculations in accordance with Article 220 must be submitted to the enforcement agency prior to permitting for both the heat pump and proposed air conditioner.

**Exception 2 to Section 150.2(b)1Fiv:** Where the required capacity of a heat pump to meet the system selection requirements of Section 150.0(h)5 is greater than or equal to 12,000 Btu/h more than the greater of the required capacity of an air conditioner to meet the design cooling load OR the capacity of the existing air conditioner, systems shall comply with the applicable requirements of Sections 150.2(b)1Fi, 150.2(b)1Fii, and 150.2(b)1Fiii. Documentation of heating and cooling load calculations in accordance with 150.0(h) must be submitted to the enforcement agency prior to permitting for both the heat pump and proposed air conditioner.

v. In all climate zones, heat pumps with supplementary heat, including, but not limited to, electric resistance heaters or gas furnace supplementary heating, shall comply with Section 150.0(h)7 and shall lock out supplementary heating above an outdoor air temperature of no greater than 35°F.

3. Section 150.2(b)2 is hereby amended to read:

**2.**  **Performance approach.**

The energy budget for alterations is expressed in terms of Long-term System Cost (LSC), and the altered component(s) and any newly installed equipment serving the alteration shall meet the applicable requirements of Subsections A, B, and C below.

A. The altered components shall meet the applicable requirements of Sections 110.0 through 110.9, Sections 150.0(a) through (l), Sections 150.0(m)1 through 150.0 (m)10, and Sections 150.0(p) through (q). Entirely new or complete replacement mechanical ventilation systems as these terms are used in Section 150.2(b)1L, shall comply with the requirements in Section 150.2(b)1L. Altered mechanical ventilation systems shall comply with the requirements of Section 150.2(b)1M. Entirely new or complete replacement space-conditioning systems, and entirely new or complete replacement duct systems, as these terms are used in Sections 150.2(b)1C and 150.2(b)1Diia, shall comply with the requirements of Sections 150.0(m)12 and 150.0(m)13.

B. The standard design for an altered component shall be the higher efficiency of existing conditions or the requirements stated in Table 150.2-G. For components not being altered, the standard design shall be based on the existing conditions. When the third party verification option is specified as a requirement, all components proposed for alteration for which the additional credit is taken, must be verified by a certified ECC-rater.

4. Table 150.2-G is hereby amended to read:

**Table 150.2-G Standard Design for an Altered Component**

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| **Altered Component** | **Standard Design Without Third Party Verification of Existing Conditions Shall be Based On** | **Standard Design With Third Party Verification of Existing Conditions Shall be Based On** |
| Ceiling Insulation, Wall Insulation, and Raised-floor Insulation | The requirements of Sections 150.0(a), (c), and (d).  The requirements of Section 150.2(b)1J for altered ceilings and for entirely new or complete replacement duct systems where the air handler and ducts are located within a vented attic.  The requirements of Section 150.2(b)1Fiv for alterations which include new or replacement air-cooled air conditioners. | The existing insulation R-value |
| Fenestration | The requirements of Section 150.1(c)3A. | The existing fenestration U-factor and  SHGC values as verified. |
| Window Film | The requirements of Section 150.1(c)3A. | The existing fenestration in the alteration shall be based on TABLE 110.6-A and TABLE 110.6-B. |
| Doors | The U-factor of 0.20. The door area shall be the door area of the existing building. | If the proposed U-factor is < 0.20, the standard design shall be based on the existing U-factor value as verified. Otherwise, the standard design shall be based on the U-factor of 0.20. The door area shall be the door area of the existing building. |
| Space-Heating and Space-Cooling Equipment | Table 150.1-A for equipment efficiency requirements;  Section 150.2(b)1C for entirely new or complete replacement systems;  Section 150.2(b)1F for refrigerant charge verification, airflow, and fan efficacy requirements.  Section 150.2(b)1Fiv for new or replacement air-cooled air conditioners | The existing efficiency levels. |
| Air Distribution System – Duct Sealing | The requirements of Sections 150.2(b)1D and 150.2(b)1E | The requirements of Sections 150.2(b)1D and 150.2(b)1E |
| Air Distribution System – Duct Insulation | ~~The proposed efficiency levels.~~  The requirements of Sections 150.2(b)1D, and for new or replacement air-cooled air conditioners, Section 150.2(b)1Fiv. | The existing efficiency levels. |
| Water Heating Systems | The requirements of Section 150.2(b)1Hii | The existing efficiency level. |
| Roofing Products | The requirements of Section 150.2(b)1I. | The requirements of Section 150.2(b)1I |
| All Other Measures | The proposed efficiency levels. | The existing efficiency levels. |

C. The proposed design shall be based on the actual values of the altered components