
MARIN COUNTY BOARD OF SUPERVISORS

ORDINANCE NO. ____

**AN ORDINANCE ADOPTING AMENDMENTS TO PORTIONS OF
MARIN COUNTY CODE TITLE 19 (BUILDING CODE)**

The BOARD OF SUPERVISORS OF THE COUNTY OF MARIN hereby ordains as follows:

SECTION I. FINDINGS

WHEREAS, the Marin County Community Development Agency initiated proposed amendments to Marin County Code Title 19 (Building Code). The Building Code includes building and energy efficiency regulations that apply to the unincorporated areas of Marin County. The project includes proposed amendments including, but not limited to modifying green building requirements for new single family and duplex structures, new multi-family projects, new non-residential buildings or additions, remodeling and additions to residential structures, remodeling of multi-family projects and remodeling to non-residential structures; and

WHEREAS, the ordinance was introduced at a regular meeting of the Board of Supervisors on the 18th day of October 2022, and adopted by the Board of Supervisors of the County of Marin, State of California, on the 15th day of November 2022; and

WHEREAS, the proposed Marin County Code Title 19 changes implement the Marin Countywide Plan (CWP) programs AIR-4.a (reduce greenhouse gas emissions resulting from energy use in buildings), AIR-4.e. (reduce County government contributions to greenhouse gas emissions), EN-1.b (adopt energy efficiency standards for new and remodeled buildings), EN-1.c (implement the single-family dwelling energy efficiency ordinance), EN-1.d (explore energy efficiency standards for existing buildings), EN-1.f (explore regional collaboration, financing, and other incentives for programs that promote sustainable energy practices), EN-1.j (reduce energy use in County facilities), EN-2.d (facilitate renewable energy technologies and design), EN-3.a (require green building practices for residential development), EN-3.b (require green building practices for non-residential development), EN-3.f (facilitate green building practices), and WR-3.a. (support water conservation efforts); and

WHEREAS, an inventory of 2020 greenhouse gas emissions for the unincorporated county found that the use of energy in residential and non-residential buildings within the unincorporated County generates 28% of the County's total annual greenhouse gas emissions, 87% of which comes from the combustion of natural gas in buildings; and

WHEREAS, the Marin County Climate Action Plan 2030 identifies reducing building energy use, and specifically natural gas use, as one of the most effective means of meeting the adopted goal of reducing the emissions of greenhouse gases to 40% below 1990 levels by the year 2030 for the unincorporated areas; and

WHEREAS, the Marin County Board of Supervisors adopted a resolution on June 15, 2021 declaring a climate emergency and reaffirming the County's commitment to reducing greenhouse gas emissions; and

WHEREAS, the California Global Warming Solutions Act of 2006, known as AB 32, established a statewide goal of reducing greenhouse gas emissions to 1990 levels by 2020 and to a level 80% below 1990 levels by 2050, and Senate Bill 32, passed in 2016, set a target to reduce statewide emissions to 40% below 1990 levels by 2030; and

WHEREAS, the State of California Air Resource Board Draft 2022 Scoping Plan states that greenhouse gas reductions from local efforts are important to support state-level measures and highlights building decarbonization as a priority strategy for greenhouse gas reduction; and

WHEREAS, through Senate Bill 100 the State of California has adopted a goal that renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045; and

WHEREAS, Marin properties can currently access 100% renewable energy via MCE's Deep Green and PG&E's Solar Choice programs, and MCE expects to achieve 95% GHG-free by 2023 for their Light Green service; and

WHEREAS, Marin County is already experiencing and at risk of more frequently experiencing the devastating effects of extreme heat and weather events and flooding caused by climate change, including increased frequency and magnitude of wildfires and associated air pollution, health impacts, utility and transportation service interruptions, economic disruption, property loss, dislocation, housing shortages, food insecurity, school closures, impacts on agricultural production; and increased demand on public sector resources and emergency response capacity; and

WHEREAS, California Health and Safety Code Section 17958.7 provides that before making any local changes or modifications to the California Building Standards Code (CBSC) pursuant to Section 17958.7, the governing body must make an express finding that such modifications or changes are reasonably necessary because of local climatic, geological or topographical conditions, that such findings must be available as a public record, that a copy of the findings together with the modifications or changes expressly marked and identified to which each finding refers, must be filed with the State Building Standards Commission, and that no modification or change shall become effective or operative for any purpose until the findings and the modifications or changes have been filed with the Commission, and that the Commission may reject a modification or change if no finding was submitted; and

WHEREAS, Marin County Board of Supervisors hereby finds that the all-electric construction and green building local modifications to California Green Building Standards Code Chapters 3, 4 and 5, as set forth in this ordinance, are reasonably necessary to address local climatic, geologic, environmental and/or topographic conditions that affect the health, safety, and welfare of residents as listed below:

- Flooding/Sea Level Rise: Marin's local topographical and environmental conditions insofar as the County of Marin is bordered by sea water on three sides, presenting a direct adverse local

impact to potential sea level rise as the result of construction related contributions to climate change. Additionally, many unincorporated communities in Marin contain Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (SFHA), meaning they have at least a 1% chance of flooding in a given year. Extreme weather conditions resulting from climate change may result in sudden, prolonged rainfall leading to further flooding events.

The use of electricity rather than natural gas in newly constructed and new construction buildings will reduce greenhouse gas emissions contributing to the effects of global warming, including extreme weather conditions that can lead to flooding and sea level rise. Increased flooding and sea level rise in both severity and frequency has been scientifically linked to global warming. Accordingly, local amendments to the municipal code establishing electrification requirements for newly constructed and new construction buildings pursuant to this ordinance are reasonably necessary to achieve greenhouse gas emission reductions that avoids heightened risks of climate shocks existing in the county such as sea level rise and flooding caused by global warming.

- **Wildfire Risk:** Approximately 60,000 acres or 18 percent of the County's land area falls within the Wildland Urban Interface (WUI), which is an area where urban development meets undeveloped lands at risk of wildfires and where residences and other structures are adjacent to or intermixed with open space and wildland vegetation. Fire hazard severity zones (FHSZ) are CAL FIRE-designated areas of significant fire hazard that influence how people construct buildings and protect property to reduce risk associated with wildland fires. A CAL FIRE countywide assessment of wildland fire threat revealed that approximately 82 percent of the total land area of the County is ranked as having moderate to very high fire hazard severity zone ratings. Historical records show that many large wildfires (greater than 500 acres) have occurred in Marin since 1850. CAL FIRE incident information identifies eight wildfires in the County since 2008.
- Local amendments to the municipal code establishing electrification requirements for newly constructed and new construction buildings pursuant to this ordinance are reasonably necessary to achieve greenhouse gas emission reductions that reduces the risks of climate shocks existing in the county such as wildfires and drought, which will then reduce risks of physical damage to critical infrastructure, property loss, and loss of life in FHSZ designated by CAL FIRE. The use of electricity rather than natural gas in newly constructed and new construction buildings will reduce greenhouse gas emissions contributing to the effects of global warming. Increased wildfire risk in both severity and frequency has been scientifically linked to global warming.
- **Seismic Risk:** The San Andreas Fault was the source of the magnitude of 7.8 earthquake in 1906. Marin was sparsely inhabited at that time and experienced relatively moderate property loss and two deaths. In 1989, the 7.1-magnitude Loma Prieta earthquake occurred on the San Andreas Fault and was the largest earthquake to occur in the San Francisco Bay Area since 1906. If the fault rupture location were closer, a strong shaking such as this could have caused severe damage within Marin County.

The elimination of natural gas appliances in newly constructed and new construction buildings would reduce the hazards associated with gas leaks during seismic events and establish

criteria for rebuilding of damaged properties following a local seismic emergency. Accordingly, local amendments to the municipal code establishing electrification requirements for newly constructed and new construction buildings pursuant to this ordinance are reasonably necessary to achieve greenhouse gas emission reductions that avoids risks existing in the county such as from gas leaks and fires caused by vibration and ground failure risks from seismic conditions.

WHEREAS, the Marin County Board of Supervisors now desires to adopt further local amendments to the 2022 CBSC, including green building standards, that are reasonably necessary because of local climatic, topographic, and geologic conditions in accordance with findings included in this ordinance in accordance with the requirements of Health & Safety Code Section 17958.7, which findings are a public record; and

WHEREAS, the Marin County Community Development Agency is the designated enforcement authority for this Title, and with the Ordinance proposed herein is expressly initiating local amendments, additions or deletions to the California Building Standards Code; and

WHEREAS, the Public Resources Code Section 25402.1(h)(2) states that a local enforcement agency may adopt more restrictive energy standards when they are cost-effective and approved by the California Energy Commission; and

WHEREAS, the Board of Supervisors hereby determines that the revised energy standards contained herein are cost effective, based upon the findings of studies conducted by Frontier Energy, Inc., Misti Bruceri & Associates LLC, and TRC Energy Services.

WHEREAS, nothing in this ordinance is intended to amend or conflict with any provisions of the National Appliance Energy Conservation Act of 1975 or to impose requirements to use or install any particular appliance or appliance system; and

WHEREAS, green building benefits are spread throughout the systems and features of the building. Green buildings can include, among other things, the use of certified sustainable wood products, extensive use of high-recycled-content products; orientation and design of a building to reduce the demand on the heating, ventilating, and air conditioning systems; the use of heating, ventilating, and air conditioning systems that provide energy efficiency and improved air quality; enhancement of indoor air quality by selection and use of construction materials that do not emit chemicals that are toxic or irritating to building occupants; the use of water conserving methods and equipment; and installation of alternative energy methods for supplemental energy production; and

WHEREAS, the cement industry has improved its technology and will soon distribute Portland Lime Cement, a binding material that is estimated to reduce GHG emissions 10% compared to the industry standard, Portland Cement (ASTM C150); and

NOW, THEREFORE, BE IT RESOLVED, that the Board of Supervisors of the County of Marin ordains as follows: Subchapter 2 of Marin County Code Chapter 19.04 (Green Building Requirements) is repealed and replaced, and Chapter 19.07 is amended to read as follows:

SECTION II: SUBCHAPTER 2 OF MARIN COUNTY CODE CHAPTER 19.04 REPEALED AND REPLACED

Subchapter 2 – All-electric and Green Building Requirements

19.04.110 Purpose.

The purpose of this chapter is to meet or exceed all applicable mandatory measures of the 2022 California Green Building Standards Code (Title 24, Part 11) and 2022 California Energy Code (Title 24, Part 6) of the California Code of Regulations. Pursuant to Health and Safety Code Sections 17958.7 and 18941.5, the Marin County Board of Supervisors hereby finds the following all-electric construction and green building modifications to California Green Building Standards Code Chapters 3, 4 and 5, as set forth in this subchapter, are reasonably necessary to address local climatic, geologic, environmental and/or topographic conditions that affect the health, safety, and welfare of residents, including flooding/sea level rise, wildfire risk, and seismic risk.

The green building provisions referenced in this chapter are designed to achieve the following objectives in Marin County:

- (1) Increase energy efficiency in buildings;
 - (2) Reduce consumption of fossil fuels;
 - (3) Encourage water and resource conservation;
 - (4) Reduce waste generated by construction projects;
 - (5) Reduce long-term building operating and maintenance costs;
 - (6) Improve indoor air quality and occupant health;
 - (7) Contribute to meeting state and local commitments to reduce greenhouse gas emissions;
 - (8) Satisfy all applicable mandatory measures of the 2022 California Green Building Standards Code (Title 24, Part 11) of the California Code of Regulations.
- 19.04.115 Applicability.

The provisions of this chapter shall apply to all construction or development projects defined below as a "covered project."

19.04.120 Definitions.

For the purposes of interpreting this chapter and the associated standards for compliance, the following terms are defined as follows. When the definitions below differ from those contained elsewhere in this title, the provisions of this chapter shall apply. These definitions are additional to those outlined in Chapter 2 of the California Green Building Standards Code, Title 24, Part 11.

- (1) "2022 California Energy Code" refers to the requirements outlined in the 2022 edition of the California Energy Code known as California Code of Regulations, Part 6 of Title 24.
- (2) "All-electric Building" or "All-electric Design" means a building or plans for a building that uses a permanent supply of electricity as the source of energy for all space heating (including but not limited to fireplaces), water heating (including but not limited

to pools and spas), cooking appliances (including but not limited to barbecues), and clothes drying appliances, and has no natural gas or propane plumbing installed in the building or within the property lines. An all-electric building may also include solar thermal collectors.

- (3) "Accessory Dwelling Unit (ADU)" means a residential unit that meets the definition of an accessory dwelling unit as outlined in [§22.130.030](#) in the County of Marin Article VIII - Development Code Definition. This states that "a residential dwelling unit, which is accessory to a primary dwelling unit, that provides complete independent living facilities for one or more persons and is located on a lot with a proposed or existing primary dwelling. It shall provide permanent provisions for living, sleeping, eating, cooking, sanitation, and independent exterior access, on the same lot as the single-family or multi-family dwelling is or will be situated. An Accessory Dwelling Unit also includes the following: (1) an efficiency unit as defined in [section 17958.1](#) of the California Health and Safety Code and (2) a manufactured home as defined in [section 18007](#) of the California Health and Safety Code." For purposes of this subchapter, ADU also covers Junior ADUs and detached or attached ADUs.
- (4) "Automatic Load Management System (ALMS)" means a control system designed to manage load across one or more electric vehicle supply equipment (EVSE), circuits, panels, and to share electrical capacity and/or automatically manage power at each connection point. ALMS systems shall be designed to deliver no less than 3.3 kVa (208/240 volt, 16-ampere) to each EV Capable, EV Ready or EVCS space served by the ALMS, and meet the requirements of California Electrical Code Article 625. The connected amperage to the building site for the EV charging infrastructure shall not be lower than the required connected amperage per California Green Building Standards Code, Title 24 Part 11.
- (5) "CALGreen" refers to the California Green Building Standards Code, as included in Title 24, Part 11 of the California Code of Regulations.
- (6) "CALGreen mandatory" means those measures that are required under Title 24, Part 11. Residential mandatory measures are contained in CALGreen Chapter 4. Nonresidential mandatory measures are contained in CALGreen Chapter 5.
- (7) "CALGreen Tier 1" refers to required pre-requisite and elective measures in addition to the CALGreen mandatory measures, as outlined in CALGreen Appendix A4.601.4 for residential projects and CALGreen Appendix A5.601.2 for nonresidential projects.
- (8) "Commercial Kitchen" means non-retail food facility devoted to the commercial preparation, production, and cooking of food and beverages for on-site or off-site consumption.
- (9) "Cooking Equipment" means equipment intended for commercial use, including ovens, ranges, and cooking appliances for use in a commercial kitchen and restaurant where food is dispensed.
- (10) "Covered Project(s)" means a development project provided below as set forth by the standards for compliance outlined in §19.04.140, Table 1, 2, or 3 for which one or more building permits are required:
 - (i) All residential and nonresidential newly constructed and new construction buildings as defined below in §19.04.120(27) and (28), respectively; and/or
 - (ii) Additions or alterations to an existing Single-Family residential building, except for any projects less than 750 square feet.

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- (11) "Direct Current Fast Charging (DCFC)" means a parking space provided with electrical infrastructure that meets the following conditions:
- (i) A minimum of 48 kVa (480 volt, 100-ampere) capacity wiring.
 - (ii) Electric vehicle supply equipment (EVSE) located within three (3) feet of the parking space providing a minimum capacity of 80-ampere.
- (12) "Electric Vehicle (EV) Capable Space" means a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging.
- (13) "Electric Vehicle (EV) Ready Space" means a vehicle space which is provided with a branch circuit; any necessary raceways, both underground and/or surface mounted, to support EV charging, terminating in a receptacle or a charger.
- (14) "Electric Vehicle Charging Space (EV Space)" means a space intended for future installation of EV charging equipment and charging of electric vehicles.
- (15) "Electric Vehicle Charging Station (EVCS)" means a parking space that includes installation of electric vehicle supply equipment (EVSE) at an EV Ready space. An EVCS space may be used to satisfy EV Ready space requirements. EVSE shall be installed in accordance with the California Electrical Code, Article 625.
- (16) "Level 1 (L1) EV Ready" means a parking space that is served by a complete electric circuit with the following requirements:
- (i) A minimum of 2.2 kVa (110/120 volt, 20-ampere) capacity wiring.
 - (ii) A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.
 - (iii) Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.
- (17) "Level 2 (L2) EV Ready" means a parking space that is served by a complete electric circuit with the following requirements:
- (i) A minimum of 8.3 kVa (208/240 volt, 40-ampere) capacity wiring.
 - (ii) A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 30-ampere.
- (18) "Electric Vehicle Supply Equipment (EVSE)" means the conductors, including the undergrounded, grounded and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets or apparatus installed for the purpose of transferring energy between the premises wiring and the electric vehicle.
- (19) "Essential Services Building" means a facility as defined by the California Health and Safety Code [section 16007](#), as amended from time to time. For purposes of this chapter, essential services buildings are publicly owned and/or publicly operated buildings whose purpose is to safeguard the public health and safety. Essential services buildings generally exclude privately owned residences and/or commercial buildings; except that, privately owned commercial buildings may qualify as essential
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- services buildings to the extent they are publicly operated to safeguard the public health and safety.
- (20) "Food Service Establishment" means any newly constructed or new construction building with construction plans for a commercial kitchen or cooking equipment.
- (21) "Industrial process heat" shall be defined as a process or manufacturing equipment for which sustained temperatures typically in excess of three hundred fifty degrees Fahrenheit are required and demonstrably not achievable with commercial electric equipment.
- (22) "Low Power Level 2 Electric Vehicle Charging Receptacle" means a parking space that is served by a complete electric circuit with the following requirements:
- (i) A minimum of 4.1 kVA (208/240 Volt, 20-ampere) capacity wiring.
 - (ii) A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.
 - (iii) Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.
- (23) "Mixed-fuel" means a building or unit in a building that is plumbed for the use of natural gas or propane as fuel for space heating, water heating, cooking or clothes drying appliances or has gas plumbing within a building or within the property lines of the premises connected to a gas meter or propane tank.
- (24) "Modified parking lot" shall be those for which paving material and curbing is removed.
- (25) "Natural gas" is the same meaning as "Fuel Gas" as defined in the California Plumbing Code and Mechanical Code.
- (26) "Natural gas infrastructure" means fuel gas piping, other than service pipe, in or in connection with a building, structure or within the property lines of premises, extending from the point of delivery at the meter, service meter assembly, outlet of the service regulator, service shutoff valve, or final pressure regulator, whichever is applicable, as specified in the California Mechanical Code and Plumbing Code.
- (27) "New Construction" means a building that meets the definition of a demolition as outlined in [§22.130.030](#) in the County of Marin Article VIII - Development Code Definition. This states that "for buildings, removal or substantial modification of more than seventy-five percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building." Any existing building that is demolished to this level will be required to comply with the requirements for all-electric construction in newly constructed and new construction buildings outlined in [§19.04.125](#).
- (28) "Newly Constructed" means a building that has never before been used or occupied for any purpose.
- (29) "Qualified green building rater" means an individual who has been trained and certified as a CALGreen inspector, LEED AP w/a specialty, GreenPoint rater, PHIUS consultant, or has similar qualifications and certifications if acceptable to the chief building official.
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- (30) “Single-Family” means a building designed for and/or occupied exclusively by one family. It is used herein to describe one and two-family dwellings and townhouses with attached private garages. It also includes factory-built, modular housing units, constructed in compliance with the California Building Code (CBC), and mobile homes/manufactured housing on permanent foundations and agricultural worker housing.

19.04.125 Requirements for all-electric construction in newly constructed and new construction buildings

- (a) Newly Constructed Buildings and buildings defined as New Construction in §22.130.030 of the County of Marin Article VIII - Development Code must satisfy the definition of an all-electric building and/or design, except as otherwise described below:
- (i) Emergency electrical generation back-up power equipment for essential services and multifamily buildings;
 - (ii) The use of portable propane appliances outside of the building envelope, such as for outdoor cooking, refrigeration, and outdoor heating appliances;
 - (iii) The use of natural gas infrastructure for equipment requiring industrial process heat;
 - (iv) Development projects that have obtained vested rights prior to the effective date of this chapter pursuant to:
 - (a) A preliminary affordable housing project application in accordance with Government Code Section 65589.5(o),
 - (b) A development agreement in accordance with Government Code Section 65866,
 - (c) A vesting tentative map in accordance with Government Code 66998.1, or
 - (d) The ruling in *Avco Community Developers Inc. v. South Coast Regional Communication* (1976) 17 Cal. 3d 785, or pursuant to other applicable statutory or case law.
 - (v) Food service establishments as defined in §19.04.120(20) and described in §19.04.180.
 - (vi) New ADUs and JADUs that are attached or wholly within an existing mixed-fuel residential building may utilize existing natural gas facilities.
- (b) Requirements are outlined by project type and size in §19.04.140, Table 1
- (c) This subchapter shall in no way amend the 2022 California Energy Code, Title 24 part 6, nor require the use or installation of any specific appliance or system.
- (d) Applicants are ineligible to apply for and the building official may not grant permits that would convert an all-electric building to a mixed-fuel building where the application was submitted on or after the effective date of this chapter.
- (e) To the extent that natural gas infrastructure is permitted, it shall only be permitted to extend to a system, device, or appliance within a building for which an equivalent all-electric design as defined in §19.04.120(2), Marin County Code, is not available.

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- (f) Newly constructed and New Construction buildings shall nonetheless be required at a minimum to have sufficient electric capacity, wiring, and conduit to facilitate future full building electrification.
 - (g) The requirements of this subchapter shall be deemed objective planning standards under Cal. Gov't Code section 65913.4 and objective development standards under Cal. Gov't Code section 65589.5

19.04.130 Requirements for additions and alterations - Local amendments to 2022 California Energy Code.

Pursuant to §19.04.010(6), the county has adopted the 2022 edition of the California Energy Code known as California Code of Regulations, Part 6 of Title 24 with additions, and deletions as provided in this subchapter.

The provisions of this subchapter shall constitute local amendments to the cross-referenced provisions of the 2022 California Energy Code and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this subchapter.

The California Energy Code, Title 24, Part 6, is hereby amended as underlined and struck through:

Section 100.0 of Subchapter 1 of the 2022 California Energy Code is modified to add new section (i) as follows:

- (i) Single-Family Building Remodel Energy Reach Code - Purpose and Intent. In addition to all requirements of the California Energy Code applicable to Existing Single-Family Building additions and alterations, the energy efficiency and renewable energy measures specified in Section 150.0(w) shall be required for Covered Projects of mixed-fuel buildings.

Section 100.1(b) is modified by adding the following definitions:

"All-electric Building" or "All-electric Design" as defined in §19.04.120(2), Marin County Code.

"Covered Project(s)" as defined in §19.04.120(10), Marin County Code.

"Mixed-fuel" building as defined in §19.04.120(23), Marin County Code.

Section 150.0 SINGLE-FAMILY RESIDENTIAL BUILDINGS – MANDATORY FEATURES AND DEVICES, first two paragraphs, are modified to read as follows:

Existing Single-Family residential buildings shall comply with the applicable requirements of Sections 150(a) through 150.0(v), and Covered Existing Single-Family Projects, other than projects identified as all-electric construction for newly constructed or new construction buildings in §19.04.125, Marin County Code, shall comply with the applicable requirements of Section 150.0(w).

NOTE: The requirements of Sections 150.0(a) through 150.0(v) apply to newly constructed buildings. Sections 150.2(a) and 150.2(b) specify which requirements of Sections 150.0(a) through 150.0(v) also apply to additions or alterations, with the exception that Covered Existing Single-Family Projects, other than projects identified as all-electric construction for newly constructed or new construction buildings in §19.04.125, Marin County Code, shall also be required to comply with Section 150.0(w).

A new Section, (w), is added to Section 150.0 as follows:

- (w) Requirements for a Covered Project are outlined by project type in §19.04.140, Table 1, Marin County Code. A Covered Existing Single-Family Project, as defined in §19.04.120(10)(ii), Marin County Code, that includes an electrical panel upgrade, a kitchen remodel or a laundry room remodel shall comply with the requirements for Measure ER2 in §19.04.140, Table 2, Marin County Code. In addition, a Covered Existing Single-Family Project in a building originally permitted for construction on or before December 31, 2010 shall install a set of measures from the Measure Menu in §19.04.140, Table 2, Marin County Code, to achieve a total Measure Point Score that is equal to or greater than the Target Score in said table and shall conform to the List of Measure Specifications in §19.04.140, Table 3, Marin County Code, except as otherwise described below:
- (i) Projects identified as all-electric construction for newly constructed or new construction buildings in §19.04.125, Marin County Code.
 - (ii) Projects less than 750 square feet.
 - (iii) Projects that are limited solely to a newly created attached Accessory Dwelling Units (ADUs) or Junior Accessory Dwelling Unit (JADU) as defined in §19.04.120(3), Marin County Code. A newly created ADU and JADU shall include either additions or conversions of existing space. This exception DOES NOT apply to a Covered Existing Single-Family Project of an existing ADU or JADU.
 - (iv) Mobile Homes, Manufactured Housing, or Factory-built Housing as defined in Division 13 of the California Health and Safety 12 Code (commencing with [section 17000](#) of the Health and Safety Code).
 - (v) If due to conditions specific to the project, it is technically or economically infeasible to achieve compliance, the chief building official may reduce the Target Score and/or waive some or all of the mandatory requirements.
 - (vi) If the applicant demonstrates that the Energy Budget of the proposed building, as calculated under Section 150.1(b), would be less than or equal to the Energy Budget of the building if it otherwise complied with this Section, 150.0(w).
 - (vii) A resident owner or occupant demonstrates that they qualify for the California Alternative Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) program may comply by installing, to the specifications in §19.04.140 Table 3, Marin County Code, the following:
 - (a) E1: Lighting Measures; and
 - (b) E2: Water Heating Package

In addition, all mandatory measures listed in §19.04.140, Table 2, Marin County Code, shall be installed.

Measure verification shall be explicitly included as an addendum to the Certificate of Compliance to be filed pursuant to 2022 Title 24 Section 10-103.

19.04.135 Requirements for Electric Vehicle Infrastructure - Local amendments to 2022 CALGreen California Green Building Standards Code.

Pursuant to §19.04.010(9), the county has adopted the 2022 edition of the California Green Building Standards Code known as California Code of Regulations, Part 11 of Title 24 (herein referred to as CALGreen Code), including Division A4.6 for Tier 1 with additions, and deletions as provided in this subchapter. Requirements are outlined by project type in Table 1 of Chapter 19.04.140, Marin County Code.

The provisions of this subchapter shall constitute local amendments to the cross-referenced provisions of the 2022 CALGreen Code and shall be deemed to replace the cross-referenced sections of said Code with the respective provisions set forth in this subchapter.

Section 202 of Chapter 2 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

Automatic Load Management System (ALMS). A control system designed to manage load across one or more electric vehicle supply equipment (EVSE), circuits, panels and to share electrical capacity and/or automatically manage power at each connection point. ALMS systems shall be designed to deliver no less than 3.3 kVa (208/240 volt, 16-ampere) to each EV Capable, EV Ready or EVCS space served by the ALMS, and meet the requirements of California Electrical Code Article 625. The connected amperage to the building site for the EV charging infrastructure shall not be lower than the required connected amperage per California Green Building Standards Code, Title 24 Part 11.

Direct Current Fast Charging (DCFC). A parking space provided with electrical infrastructure that meets the following conditions:

- i. A minimum of 48 kVa (480 volt, 100-ampere) capacity wiring.
- ii. Electric vehicle supply equipment (EVSE) located within three (3) feet of the parking space providing a minimum capacity of 80-ampere.

Electric Vehicle Charging Station (EVCS). ~~One or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.~~ A parking space that includes installation of electric vehicle supply equipment (EVSE) at an EV Ready space. An EVCS space may be used to satisfy EV Ready space requirements. EVSE shall be installed in accordance with the California Electrical Code, Article 625.

Electric Vehicle (EV) Ready Space. [HCD] A vehicle space which is provided with a branch circuit; any necessary raceways, both underground and/or surface mounted; to accommodate EV charging, terminating in a receptacle or a charger.

Electric Vehicle (EV) Capable Space. A vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging.

Level 2 (L2) EV Capable. A parking space provided with electrical infrastructure that meets the following requirements:

- i. Conduit that links a listed electrical panel with sufficient capacity to a junction box or receptacle located within three (3) feet of the parking space.
- ii. The conduit shall be designed to accommodate at least 8.3 kVa (208/240 volt, 40-ampere) per parking space. Conduit shall have a minimum nominal trade size of 1

inch inside diameter and may be sized for multiple circuits as allowed by the California Electrical Code. Conduit shall be installed at a minimum in spaces that will be inaccessible after construction, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits, and such additional elements deemed necessary by the Building Official. Construction documents shall indicate future completion of conduit from the panel to the parking space, via the installed inaccessible conduit.

- iii. The electrical panel shall reserve a space for a 40-ampere overcurrent protective device space(s) for EV charging, labeled in the panel directory as "EV CAPABLE."
- iv. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.
- v. The parking space shall contain signage with at least a 12" font adjacent to the parking space indicating the space is EV Capable.

Level 1 (L1) EV Ready. A parking space that is served by a complete electric circuit with the following requirements:

- i. A minimum of 2.2 kVa (110/120 volt, 20-ampere) capacity wiring.
- ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.
- iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

Level 2 (L2) EV Ready. A parking space that is served by a complete electric circuit with the following requirements:

- i. A minimum of 8.3 kVa (208/240 volt, 40-ampere) capacity wiring.
- ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 30-ampere.

Low Power Level 2 (L2) EV Ready. A parking space that is served by a complete electric circuit with the following requirements:

- i. A minimum of 4.1 kVA (208/240 Volt, 20-ampere) capacity wiring.
- ii. A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere.
- iii. Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

Low Power Level 2 Electric Vehicle (EV) Charging Receptacle. [HCD] ~~A 208/240 Volt 20-ampere minimum branch circuit and a receptacle for use by an EV driver to charge their electric vehicle or hybrid electric vehicle.~~

Off-Street Loading Spaces. [BSC-CG, DSA-SS] An area, other than a public street, public way, or other property (and exclusive of off-street parking spaces), permanently reserved

or set aside for the loading or unloading of motor vehicles, including ways of ingress and egress and maneuvering areas. Whenever the term "loading space" is used, it shall, unless the context clearly requires otherwise, be construed as meaning off-street loading space. This excludes designated passenger loading/unloading.

Section 301.1 of Chapter 3 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

301.1 Scope. Buildings shall be designed to comply with applicable requirements of Marin County Green Building Requirements beginning at Chapter 19.04.110, Marin County Code, and shall also include the green building measures specified as mandatory in the application checklists contained in this code. ~~Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.~~

Section 301.1.1 of Chapter 3 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions and alterations of existing residential buildings ~~where the addition or alteration increases the building's conditioned area, volume or size,~~ in accordance with applicable requirements of Marin County Green Building Requirements beginning at Chapter 19.04.110, Marin County Code. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provisions of section 4.106.4.1.12 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.1.23 for application.

NOTE: Repairs including, but not limited to, resurfacing, restriping, and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Section 301.3 of Chapter 3 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

301.3 Nonresidential additions and alterations. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings and building additions and alterations of ~~1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above~~ (for occupancies within the authority of California Building standards Commission). Code sections relative to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

Section 4.106.4 of Chapter 4 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

4.106.4 Electric vehicle (EV) charging for new construction. ~~New Residential~~ New Residential construction shall comply with Section 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and

Pavement Markings) or its successor(s). Calculation for spaces shall be rounded up to the nearest whole number.

Exceptions:

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - 1.1. Where there is no local utility power supply or the local utility is unable to supply adequate power.
 - 1.2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities and without electrical panel upgrade or new panel installation. Detached ADUs, attached ADUs, and JADUs without additional parking but with electrical panel upgrades or new panels must have reserved breakers and electrical capacity according to the requirements of A4.106.8.1.
3. Multifamily building projects that have approved entitlements before the code effective date.
4. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

~~4.106.4.1 New one- and two-family dwellings and town-houses with private garages.~~

~~For each dwelling unit, install a listed raceway to accommodate a dedicated 208-240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.~~

~~**Exception:** A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.~~

~~**4.106.4.1.1 Identification.** The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".~~

~~4.106.4.12 New mMultifamily dwellings, hotels and motels and with new parking facilities.~~ Requirements apply to parking spaces that are assigned or leased to individual

dwelling units, as well as unassigned residential parking. Visitor or common area parking is not included.

4.106.4.1.1 New Construction. Fifteen percent (15%) of dwelling units with parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Eighty-five percent (85%) of dwelling units with parking spaces shall be provided with a Low Power Level 2 EV Ready space. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A. EVCS shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B.

NOTE: The total number of EV spaces should be one-hundred percent (100%) of dwelling units or one-hundred percent (100%) of parking spaces, whichever is less.

4.106.4.1.2 Additions and alterations of existing buildings.

1. When parking facilities upgrade the service panel or parking lot surface is modified, including the removal of paving material and curbing, comply with the number of spaces designated for the project type as outlined in Table 1 of Chapter 19.04.110, Marin County Code. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.
2. When new parking facilities are added and ALMS is installed, the ALMS system must be designed to deliver no less than 2.2 kVa (110/120 volt, 20-ampere).

4.106.4.2 Hotel and Motel Occupancies – Shared Parking Facilities.

4.106.4.2.1 New Construction. Ten percent (10%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Thirty-five percent (35%) of parking spaces provided shall be Low Power Level 2 EV Ready space. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

4.106.4.2.2 Additions and Alterations of Existing Buildings.

1. When parking facilities upgrade the service panel or parking lot surface is modified, including the removal of paving material and curbing, comply with the number of spaces designated for the project type as outlined in Table 1 of Chapter 19.04.110, Marin County Code. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.
2. When new parking facilities are added and ALMS is installed, the ALMS system must be designed to deliver no less than 2.2 kVa (110/120 volt, 20-

ampere).

When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.

The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1. ~~**EV Capable.** Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.~~

~~The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the *California Electrical Code*.~~

Exceptions:

1. ~~When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.~~
2. ~~When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.~~

Notes:

- a. ~~Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.~~
- b. ~~There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.~~
2. ~~**EV Ready.** Twenty five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.~~

~~**Exception:** Areas of parking facilities served by parking lifts.~~

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.

The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

- a. **EV Capable.** Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the *California Electrical Code*.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

- a. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
- b. There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.
- b. **EV Ready.** Twenty five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

- c. **EV Chargers.** Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.3.2.2.1 Electric vehicle charging stations (EVCS).

Electric vehicle charging stations required by Section 4.106.4.1.2.2, ~~Item 3~~ and 4.106.4.2, shall comply with Section 4.106.4.3.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels, and hotels shall not be required to comply with this section. See *California Building Code*, Chapter 11B, for applicable requirements.

4.106.4.3.12.2.1.1 Location.

EVCS shall comply with at least one of the following options:

1. The charging space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
2. The charging space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.3.12.2.1.1 and Section 4.106.4.3.22.2.1.2, Item 3.

4.106.4.3.22.2.1.2 Electric vehicle charging stations (EVCS) d Dimensions.

The charging spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).
2. The minimum width of each EV space shall be 9 feet (2743 mm).
3. One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).
 - a. Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

Exception: Where the County of Marin Municipal or Zoning Code permits parking space dimensions that are less than the minimum requirements stated in this section 4.106.4.3.2, and the compliance with which would be infeasible due to particular circumstances of a project, an exception may be granted while remaining in compliance with California Building Code Section Table 11B-228.3.2.1 and 11B-812, as applicable.

4.106.4.2.2.1.3 Accessible EV spaces. ~~In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the *California Building Code*, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with *California Building Code*, Chapter 11A, Section 1109A.~~

4.106.4.4 Direct current fast charging stations (DCFC). One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 4.106.4.1 and 4.106.4.2. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

4.106.4.2.3 EV space requirements.

- ~~1. Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.~~

~~**Exception:** A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the *California Electrical Code*.~~

- ~~2. Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles, or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.~~

~~**Exception:** A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the *California Electrical Code*.~~

4.106.4.2.4 Identification.

~~The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the *California Electrical Code*.~~

4.106.4.2.5 Electric Vehicle Ready Space Signage.

~~Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).~~

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.

~~When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.~~

Notes:

-
- ~~1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.~~
 - ~~2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.~~

Section A4.106.8 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

New construction shall comply with Sections A4.106.8.1, ~~A4.106.8.2 or A4.106.8.3~~, to facilitate future installation and use of electric vehicle chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625.

Section 5.106.5.3 of the 2022 CALGreen Code is hereby amended as underlined and struck through:

5.106.5.3 Electric vehicle (EV) charging.

~~[N]~~ Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the *California Building Code* and the *California Electrical Code*. Accessible EVCS shall be provided in accordance with the *California Building Code Chapter 11B Section 11B-228.3*. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). Calculation for spaces shall be rounded up to the nearest whole number.

Exceptions:

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - a. Where there is no local utility power supply
 - b. Where the local utility is unable to supply adequate power.
 - c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

Section A5.106.5 of Appendix A5 of the 2022 CALGreen Code is hereby amended as struck through:

~~**A5.106.5.1 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 zero-emitting, fuel efficient and carpool/van pool vehicles as listed in code Sections A5.106.5.1.1 or A5.106.5.1.2.~~

~~**A5.106.1.1.1 Tier 1.**~~

Provide ~~35 percent designated parking spaces of the total number of parking spaces, for any combination of zero-emitting, fuel-efficient and carpool/van pool vehicles. Calculation for spaces shall be rounded up to the whole number.~~

~~**Note:** Designated parking for clean air vehicles shall count toward the total parking spaces required by the local enforcing agencies.~~

~~**A5.106.1.1.2 Tier 2.**~~

~~Provide 50 percent designated parking spaces of the total number of parking spaces, for any combination of zero-emitting, fuel-efficient and carpool/van pool vehicles. Calculation for spaces shall be rounded up to the whole number.~~

~~**Note:** Designated parking for clean air vehicles shall count toward the total parking spaces required by the local enforcing agencies.~~

~~**A5.06.5.1.3 Parking stall marking.**~~

~~Paint, in the paint for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle:~~

~~CLEAN AIR/
VANPOOL/EV~~

~~**Note:** Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.~~

~~**A5.106.5.1.1 Vehicle designations.**~~

~~Building managers may consult with local Transit Management Associations (TMAs) for methods of designating qualifying vehicles, such as issuing parking stickers.~~

~~**Notes:**~~

- ~~1. Information on qualifying vehicles, car labeling regulations and DMV CAV decals may be obtained from the following sources:
 - ~~a. California DriveClean.~~
 - ~~b. California Air Resources Board.~~
 - ~~c. US EPA fuel economy regulations and standards.~~
 - ~~d. DMV Registration Operations.~~~~
- ~~2. Purchasing policy and refueling sites for zero-emitting vehicles for state employees use can be found at the Department of General Services.~~

~~**A5.106.5.3 Electric Vehicle (EV) charging. [N]**~~

~~Construction shall comply with Section A5.106.5.3.1 or A5.106.5.3.2, and in accordance with regulations in the *California Building Code* and the *California Electrical Code*. Accessible EVCS shall be provided in accordance with the *California Building Code*~~

Chapter 11B Section 11B-228.3. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s). Calculation for spaces shall be rounded up to the nearest whole number.

Exceptions:

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
 - a. Where there is no local utility power supply.
 - b. Where the local utility is unable to supply adequate power.
 - c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section A5.106.5, may adversely impact the construction cost of the project.
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

A5.106.5.3 Nonresidential Occupancies – Shared Parking Facilities.

A5.106.5.3.1 New Construction - Tier 1.

Table A5.106.5.3.1 shall be used to determine the number of EV capable spaces required. Refer to section 5.106.5.3 for design space requirements.

When EV capable spaces are provided with EVSE to create EVCS per Table A5.106.5.3.1.

TABLE A5.106.5.3.1

| TOTAL NUMBER OF ACTUAL PARKING SPACES | TIER 1 NUMBER OF REQUIRED EV CAPABLE SPACES | TIER 1 NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE) ² |
|---------------------------------------|---|---|
| 0-9 | 2 | 0 |
| 10-25 | 5 | 0 |
| 26-50 | 11 | 2 |
| 51-75 | 19 | 3 |
| 76-100 | 26 | 4 |
| 101-150 | 38 | 6 |
| 151-200 | 53 | 9 |
| 201 and over | 30 percent of total ¹ | 25 percent of EV capable spaces ¹ |

1. Calculation for spaces shall be rounded up to the nearest whole number.
2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.

A5.106.5.3.2 Additions and alterations of existing buildings–Tier 2.

1. When parking facilities upgrade the service panel or parking lot surface is modified, including the removal of paving material and curbing, comply with the number of spaces designated for the project type as outlined in Table 1 of Chapter 19.04.110, Marin County Code. Upgrades shall be required at currently designated vehicle parking spaces. Upgrades shall be required for remaining parking spaces after meeting the accessibility requirements of California Building Code Chapters 11A and 11B.
2. When new parking facilities are added and ALMS is installed, the ALMS system must be designed to deliver no less than 2.2 kVa (110/120 volt, 20-ampere).

A5.106.5.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 5.106.5.3. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

~~Table A5.106.5.3.2 shall be used to determine the number of EV capable spaces required. Refer to section 5.106.5.3 for design space requirements.~~

~~—When EV capable spaces are provided with EVSE to create EVCS per Table A5.106.5.3.1, refer to Section 5.106.5.3.2 for the allowed use of Level 2 or Direct~~

Current Fast Charger (DCFC) and Section 5.106.5.3.3 for the allowed use of Automatic Load Management Systems (ALMS).

TABLE A5.106.5.3.2

| TOTAL NUMBER OF ACTUAL PARKING SPACES | TIER 2 NUMBER OF REQUIRED EV CAPABLE SPACES | TIER 2 NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE) ² |
|---------------------------------------|---|---|
| 0-9 | 3 | 0 |
| 10-25 | 8 | 3 |
| 26-50 | 17 | 6 |
| 51-75 | 28 | 9 |
| 76-100 | 40 | 13 |
| 101-150 | 57 | 19 |
| 151-200 | 79 | 26 |
| 201 and over | 45 percent of total ¹ | 33 percent of EV capable spaces ¹ |

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

2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count toward the total number of required EV capable spaces shown in column 2.

Section 5.106.5.4 of the 2022 CALGreen Code is hereby amended as struck through:

5.106.5.4 Electric vehicle (EV) charging readiness: medium-duty and heavy-duty. [N]

Construction shall comply with Section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE. Accessible EVCS shall be provided in accordance with the California Building Code Chapter 11B Section 11B-228.3. For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

Exceptions:

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
 - a. Where there is no local utility power supply.

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

~~When EVCS(s) are installed, it shall be in accordance with the California Building Code, the California Electrical Code as follows:~~

5.106.5.4.1 ~~Electric vehicle charging readiness requirements for w~~Warehouses, grocery stores and retail stores with planned off-street loading spaces.

[N] In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

1. The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
2. The construction documents shall indicate one or more location(s) convenient to the planned off-street loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.4.1.
3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.
4. The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty EVs as shown in Table 5.106.5.4.1.

TABLE 5.106.5.4.1, Raceway Conduit and Panel power Requirements for Medium-and-Heavy-Duty EVSE [N]

| Building type | Building Size (sq. ft.) | Number of Off-street loading spaces | Additional capacity Required (kVa) for Raceway & Busway and Transformer & Panel |
|---------------|-------------------------|-------------------------------------|---|
| Grocery | 10,000 to 90,000 | 1 or 2 | 200 |

| Building type | Building Size (sq. ft.) | Number of Off-street loading spaces | Additional capacity Required (kVa) for Raceway & Busway and Transformer & Panel |
|---------------|-------------------------|-------------------------------------|---|
| | | 3 or Greater | 400 |
| | Greater than 90,000 | 1 or Greater | 400 |
| Retail | 10,000 to 135,000 | 1 or 2 | 200 |
| | | 3 or Greater | 400 |
| | Greater than 135,000 | 1 or Greater | 400 |
| Warehouse | 20,000 to 256,000 | 1 or 2 | 200 |
| | | 3 or Greater | 400 |
| | Greater than 256,000 | 1 or Greater | 400 |

19.04.140 Standards for compliance.

The Marin County Green Building Requirements define compliance thresholds for different projects that are covered by this ordinance. These standards are summarized below in Table 1. The energy efficiency and electrification measures menu and specifications are detailed in Tables 2 and 3.

Table 1: Requirements by Project Type and Size

| Project Type and Size | Green Building Requirements | Energy Efficiency Requirements | Electric Vehicle Requirements |
|---|---|--|---|
| Single and Two-Family Newly Constructed or New Construction | All-electric design AND CALGreen Tier 1 | Meet the standards outlined for the project in the 2022 California Energy Code | Comply with CALGreen Measure A4.106.8.1, Tier 1 |
| Multifamily Residential Newly Constructed or New Construction | | | Of the total parking spaces, (i) 15% Level 2 (L2) EVCS (ii) 85% Low-Power Level 2 (LPL2) EV Ready |
| Hotels and Motels Newly Constructed or New Construction | | | Of the total parking spaces, (i) 10% Level 2 (L2) EVCS (ii) 35% Low-Power Level 2 (LPL2) EV Ready (iii) 10% Level 2 (L2) EV Capable |
| Nonresidential Newly Constructed or New Construction | | | For Nonresidential: comply with CALGreen Measure A5.106.5.3.1, Tier 1; AND For Nonresidential Grocery, Retail, or Warehouses planning off-street medium-heavy-duty loading spaces: comply with CALGreen Measure 5.106.5.4 |
| Single and Two-Family Additions and Alterations less than 750 square feet | CALGreen Mandatory | Meet the standards outlined for the project in the 2022 California Energy Code | If the project is upgrading the main electrical service panel, comply with CALGreen Measure A4.106.8.1, Tier 1 |

| | | | |
|--|--------------------|---|--|
| Single and Two-Family Additions and Alterations 750 square feet or greater | CALGreen Tier 1 | Using the Measure Menu in Table 2, achieve a total score that is equal to or greater than the Target Score for the applicable climate zone and install the electric readiness measures (ER2) as applicable in Table 3 | If the project is upgrading the main electrical service panel, comply with CALGreen Measure A4.106.8.1, Tier 1 |
| Multifamily Residential Additions and Alterations less than 750 square feet | CALGreen Mandatory | Meet the standards outlined for the project in the 2022 California Energy Code | <p>If the service panel is modified, add designated electrical capacity for 20% of onsite parking spaces to be Level 2 EV Ready.</p> <p>If parking lot surface is modified (paving material and curbing removed):</p> <ul style="list-style-type: none"> (i) add raceway to a minimum of 50% of exposed parking spaces, OR (ii) add raceway to a minimum of 20% of exposed parking spaces and install at minimum 5% EVCS to parking spaces requiring any combination of Level 2 and Direct Current Fast Charging EVSE, except at least one Level 2 EVSE shall be provided. <p>Where existing electrical service will not be upgraded in the existing project scope, designate capacity for parking spaces to the maximum extent that does not require an upgrade to existing electrical service.</p> |
| Multifamily Residential Additions and Alterations 750 square feet or greater | CALGreen Tier 1 | | |
| Hotels and Motels Additions and Alterations | | | |
| Nonresidential Additions and Alterations | | | |

The following conditions also apply to Table 1:

- (a) Cumulative new construction or remodels during the preceding 36-month period from the acceptance of this application shall be considered as a single covered project, and subject to the highest compliance threshold based on the cumulative project size or valuation.
- (b) Mixed use (residential and commercial) projects must comply either with the applicable covered project requirements for the respective residential and commercial portions of the project or may propose to utilize a mixed-use rating system, subject to approval by the chief building official.

Table 2: Energy and Electrification Menu of Measures by Climate Zone

| Measure | | Climate Zone | | Steps |
|------------------------------|-----------------------------------|---|----|--|
| | | 2 | 3 | |
| Specification | Spec. ID (Refer to Table 3) | Target Score | | 2) Minimum Target Score needed to comply (1 point = 1MMBTU savings per yr.) |
| | | 8 | 6 | |
| Lighting | E1 | Mandatory | | 3) Choose a measure or a combination of measures that adds up to the minimum target score above based on CZ. Measures listed as "Mandatory" MUST be installed. 4) Use the Specification Number (Spec. ID) column as a key and conform to the specifications in Table 3 below. Table 3 describes, specifies, and details compliance with each corresponding measure. |
| Water Heating Package | E2 | 1 | 1 | |
| Air Sealing | E3 | 1 | 1 | |
| R-49 Attic Insulation | E4 | 1 | 1 | |
| Duct Sealing | E5 | 1 | -- | |
| New Ducts + Duct Sealing | E6 | 2 | 2 | |
| PV + Electric Ready Pre-Wire | ER1 | 12 | 12 | |
| Electric Readiness Measures | ER2 | Mandatory (if remodeling kitchen, laundry, or upgrading panel) | | |
| HPWH | FS1 | 12 | 12 | |
| High Eff HPWH | FS2 | 13 | 13 | |
| HVAC Heat Pump | FS3 | 13 | 10 | |
| High Eff HVAC Heat Pump | FS4 | 14 | 11 | |
| Heat Pump Clothes Dryer | FS5 | 1 | 1 | |
| Induction Cooktop | FS6 | 1 | 1 | |

¹California Energy Commission climate zone tool finder at <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/climate-zone-tool-maps-and>.

The following conditions also apply to Table 2:

- (a) Unless otherwise specified, the requirements shall apply to the entire dwelling unit, not just the additional or altered portion.
- (b) Measures from the Measure Menu in Table 2 and specified in Table 3, that already exist in the home, may be counted towards compliance with these requirements, unless otherwise specified in Table 3.
- (c) Measures from the Measure Menu in Table 2 that are to be installed to satisfy requirements under the State Energy Code, Title 24, Part 6, may also be counted towards compliance with these requirements. Where these requirements conflict with other Energy Code requirements, the stricter requirements shall prevail.

| Table 3. List of Measure Specifications | |
|--|---|
| ID | Measure Specification |
| Energy Measures | |
| E1 | Lighting Measures – Replace all interior and exterior screw-in incandescent, halogen, and compact fluorescent lamps with LED lamps. Install photocell controls on all exterior lighting luminaires. |
| E2 | <p>Water Heating Package: Add exterior insulation meeting a minimum of R-6 to existing storage water heaters. Insulate all accessible hot water pipes with pipe insulation a minimum of ¾ inch thick. This includes insulating the supply pipe leaving the water heater, piping to faucets underneath sinks, and accessible pipes in attic spaces or crawlspaces. Upgrade fittings in sinks and showers to meet current California Green Building Standards Code (Title 24, Part 11) Section 4.303 water efficiency requirements.</p> <p style="padding-left: 40px;">Exception 1: Water heater blanket is not required on water heaters less than 20 gallons.</p> <p style="padding-left: 40px;">Exception 2: Water heater blanket not required if application of a water heater blanket voids the warranty on the water heater.</p> <p style="padding-left: 40px;">Exception 3: Upgraded fixtures are not required if existing fixtures have rated or measured flow rates of no more than ten percent greater than 2022 California Green Building Standards Code (Title 24, Part 11) Section 4.303 water efficiency requirements.</p> <p style="padding-left: 40px;">Exception 4: Water heaters with factory installed insulation of R-24 or greater</p> |

| | |
|--|---|
| E3 | <p>Air Sealing: Seal all accessible cracks, holes, and gaps in the building envelope at walls, floors, and ceilings. Pay special attention to penetrations including plumbing, electrical, and mechanical vents, recessed can light luminaires, and windows. Weather-strip doors if not already present. Verification shall be conducted following a prescriptive checklist that outlines which building aspects need to be addressed by the permit applicant and verified by an inspector. Compliance can also be demonstrated with blower door testing conducted by a certified HERS Rater no more than three years prior to the permit application date that either: a) shows at least a 30 percent reduction from pre-retrofit conditions; or b) shows that the number of air changes per hour at 50 Pascals pressure difference (ACH50) does not exceed ten. If combustion appliances are located within the pressure boundary of the building, conduct a combustion safety test by a professional certified by the Building Performance Institute in accordance with the ANSI/BPI-1200-S-2017 Standard Practice for Basic Analysis of Buildings¹, the Whole House Combustion Appliance Safety Test Procedure for the Comfortable Home Rebates Program 2020 or the California Community Services and Development Combustion Appliance Safety Testing Protocol.</p> |
| E4 | <p>R-49 Attic Insulation: Attic insulation shall be installed to achieve a weighted assembly U-factor of 0.020 or insulation installed at the ceiling level shall have a thermal resistance of R-49 or greater for the insulation alone. Recessed downlight luminaires in the ceiling shall be covered with insulation to the same depth as the rest of the ceiling. Luminaires not rated for insulation contact must be replaced or fitted with a fire-proof cover that allows for insulation to be installed directly over the cover.</p> <p style="padding-left: 40px;">Exception: In buildings where existing R-30 is present and existing recessed downlight luminaires are not rated for insulation contact, insulation is not required to be installed over the luminaires.</p> |
| E5 | <p>Duct Sealing: Air seal all space conditioning ductwork to meet the requirements of the 2022 Title 24 Section 150.2(b)1E. The duct system must be tested by a HERS Rater no more than three years prior to the Covered Single Family Project permit application date to verify the duct sealing and confirm that the requirements have been met. This measure may not be combined with the New Ducts and Duct Sealing measure in this Table.</p> |
| E6 | <p>New Ducts + Duct Sealing: Replace existing space conditioning ductwork with new R-8 ducts that meet the requirements of 2022 Title 24 Section 150.0(m)11. This measure may not be combined with the Duct Sealing measure in this Table. To qualify, a preexisting measure must have been installed no more than three years before the Covered Single Family Project permit application date.</p> |
| E7 | <p>Windows: Replace all existing windows with high performance windows with an area-weighted average U-factor no greater than 0.32.</p> |
| E8 | <p>R-13 Wall Insulation: Install wall insulation in all exterior walls to achieve a weighted U-factor of 0.102 or install wall insulation in all exterior wall cavities that shall result in an installed thermal resistance of R-13 or greater for the insulation alone.</p> |
| <p>Fuel Substitution Measures</p> | |

| | |
|---|---|
| FS1 | Heat Pump Water Heater (HPWH): Replace all existing electric resistance and natural gas storage water heaters with heat pump water heaters. |
| FS2 | High Efficiency Heat Pump Water Heater (HPWH): Replace all existing electric resistance and natural gas storage water heaters with heat pump water heaters with a Northwest Energy Efficiency Alliance (NEEA) Tier 3 or higher rating. |
| FS3 | HVAC Heat Pump: Replace all existing gas space heating system and existing electric resistance heating systems with electric heat pump systems. |
| FS4 | High Efficiency HVAC Heat Pump: Replace all existing gas space heating system and existing electric resistance heating systems with electric heat pump systems with a SEER rating of 21 or greater and an HSPF rating of 11 or greater. |
| FS5 | Heat Pump Clothes Dryer: Replace all existing electric resistance clothes dryers with heat pump dryers with no resistance element and cap the gas lines. |
| FS6 | Induction Cooktop: Replace all existing gas and electric resistance stove tops with inductive stove tops and cap the gas lines. |
| Solar PV and Electric-Readiness Measures | |
| ER1 | <p>PV+ Electric Ready Pre-Wire: For New PV Systems: Install a new solar PV system that meets the requirements of 2022 Title 24 Section 150.1(c)14 and upgrade the service panel to meet the requirements of ER2.G. and install any two of the other measures from ER2.A – ER2.F.</p> <p>For Existing PV Systems: If the home already has an existing PV system, to claim credit for this measure, ER1, upgrade the service panel to meet the requirements of ER2.G. and install any two of the other measures from ER2.A – ER2.F.</p> |
| ER2 | <p>Electric Readiness Measures:</p> <p>To claim credit for Item ER1, in addition to the solar PV system installed, upgrade the panelboard to meet the requirements of Item ER2.G and install any two of the other measures ER2.A – ER2.F, below to allow for installation of electric appliances at a future date.</p> <p>For any Covered Project, if the service panel is being upgraded, install any two of the other measures below.</p> <p>If the laundry room is being remodeled, comply with Item ER2.D and upgrade the panelboard to meet the requirements of Item ER2.G.</p> <p>If the kitchen is being remodeled, comply with Item ER2.C and upgrade the service panel to meet the requirements of Item ER2.G.</p> <ul style="list-style-type: none"> A. Heat Pump Water Heater Ready, as specified in Section 150.0(n)1. B. Heat Pump Space Heater Ready, as specified in Section 150.0(t). C. Electric Cooktop Ready, as specified in Section 150.0(u). D. Electric Clothes Dryer Ready, as specified in Section 150.0(v). E. Energy Storage Systems (ESS) Ready, as specified in Section 150.0(s). |

F. EV Charger Ready. Install a listed raceway for an EV charger, that meets the requirements of the California Green Building Standards Code (Title 24, Part 11) Section A4.106.8.1, Tier 1 and 2, which otherwise applies to new construction.

G. Upgrade the panelboard serving the individual dwelling to either:

(i) a minimum 200 amp panel with a minimum 225 amp busbar rating to accommodate future connection of electric appliances, including heat pump water heaters, heat pump space heaters, electric cooktops, electric clothes dryers as specified in California Energy Code Section 150.0 (n), (t), (u) and (v) and Level 2 electric vehicle supply equipment; or,

(ii) provide electrical load calculations and appliance specifications for serving all of these end-uses with a minimum 100-amp panel.

Exception: If an electrical permit is not otherwise required for the project other than compliance with this Item, ER2.

19.04.150 Incentives for compliance.

In addition to the required standards for compliance, the Board of Supervisors may establish by resolution, financial or application processing incentives and/or award or recognition programs to encourage higher levels of green building compliance for a project.

19.04.160 Administrative procedures.

The procedures for compliance with the provisions of this chapter shall include, but not be limited to the following:

- (a) *Project design.* Applicants for a covered project are strongly encouraged to involve a qualified green building rater in the initial design phases of the project in advance of submittal of an application to determine applicable green building compliance thresholds and the most cost effective and appropriate means of achieving compliance.
- (b) *Planning applications.* If a discretionary planning application is required for a covered project, applicants should be prepared to identify expected green building measures to be included in the project to achieve the compliance thresholds. Applicants should identify any anticipated difficulties in achieving compliance and any exemptions from the requirements of this chapter that may be requested.
- (c) *Building plan check review.* Upon submittal of an application for a building permit, building plans for any covered project shall include a green building program description and completed checklist. The checklist shall be incorporated onto a separate full-sized plan sheet included with the building plans. Evidence that the project, as indicated by the project plans and green building program description, will achieve the standards for compliance outlined in Section 19.04.140, shall be provided prior to issuance of a building permit.
- (d) *Changes during construction.* During the construction process, alternate green building measures may be substituted, provided that documentation of the proposed

change and the project's continued ability to achieve the standards for compliance to the chief building official shall be provided.

- (e) *Final building inspection.* Prior to final building inspection and occupancy for any covered project, evidence that project construction has achieved the required compliance set forth in the standards for compliance outlined in Section 19.04.140 shall be provided. The chief building official shall review the documentation submitted by the applicant and determine whether the project has achieved the compliance threshold as set forth in the standards for compliance outlined in Section 19.04.140. If the chief building official determines that the applicant has met these requirements, the final building inspection may proceed.
- (f) *Conflict with other laws.* The provisions of this chapter are intended to be in addition to and not in conflict with other laws, regulations and ordinances relating to building construction and site development. If any provision of this chapter conflicts with any duly adopted and valid statutes or regulations of the federal government or the state of California, the federal or state statutes or regulations shall take precedence.

19.04.170 Exemptions.

- (a) The provisions of this chapter shall not apply to:
 - (1) Buildings which are temporary (such as construction trailers).
 - (2) Building area which is not or is not intended to be conditioned space.
 - (3) Any requirements of this chapter which would impair the historic integrity of any building listed on a local, state or federal register of historic structures, as determined by the chief building official and as regulated by the California Historic Building Code (Title 24, Part 8). In making such a determination, the chief building official may require the submittal of an evaluation by an architectural historian or similar expert.
- (b) As outlined in the 2022 CALGreen code, section 4.106.4 and A5.106.5, applicants may be exempted from the electric vehicle charging requirements on a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - (1) Where there is no commercial power supply or the local utility is unable to supply adequate power.
 - (2) Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of section 4.106.4 and A5.106.5 may adversely impact the construction cost of the project.
 - (3) ADUs and JADUs without additional parking facilities.
 - (4) Parking spaces accessible only by automated mechanical car parking systems are not required to comply with CALGreen Code section 4.106.4 and A5.106.5
- (c) Hardship or infeasibility exemption. If an applicant for a covered project believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this chapter, the applicant may request an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.

-
- (1) *Application.* Based on the following, the applicant shall identify in writing the specific requirements of the standards for compliance that the project is unable to achieve and the circumstances that make it a hardship or infeasible for the project to comply with this chapter. The applicant may not petition for relief from any requirement of the 2022 California Energy Code (Title 24, Part 6) and referenced standards, or the 2022 California Green Building Standards (Title 24, Part 11) of the California Building Standards Code. Circumstances that constitute hardship or infeasibility shall include one of the following:
 - a. That the cost of achieving compliance is disproportionate to the overall cost of the project;
 - b. That strict compliance with these standards would create or maintain a hazardous condition(s) and present a life safety risk to the occupants.
 - (2) *Granting of exemption.* If the chief building official determines that it is a hardship or infeasible for the applicant to fully meet the requirements of this chapter and that granting the requested exemption will not cause the building to fail to comply with the 2022 California Energy Code (Title 24, Part 6) and referenced standards, or the 2022 California Green Building Standards (Title 24, Part 11) of the California Building Standards Code, the chief building official shall determine the maximum feasible threshold of compliance reasonably achievable for the project. In making this determination, the chief building official shall consider whether alternate, practical means of achieving the objectives of this chapter can be satisfied, such as reducing comparable energy use at an off-site location within the county. If an exemption is granted, the applicant shall be required to comply with this chapter in all other respects and shall be required to achieve the threshold of compliance determined to be achievable by the chief building official.
 - (3) *Denial of exception.* If the chief building official determines that it is reasonably possible for the applicant to fully meet the requirements of this chapter, the request shall be denied, and the applicant shall be notified of the decision in writing. The project and compliance documentation shall be modified to comply with the standards for compliance.
 - (4) *Appeal.* Any aggrieved applicant or person may appeal the determination of the chief building official regarding the granting or denial of an exemption or compliance with any other provision of this chapter. An appeal of a determination of the chief building official shall be filed in writing and processed in accordance with the provisions of Section 19.04.028 of this code.

19.04.180 Revocable building and infrastructure exemptions.

Notwithstanding the requirements of this chapter and the greenhouse gas emissions and other public health and safety hazards associated with natural gas infrastructure, minimally necessary and specifically tailored natural gas infrastructure shall be allowed in a newly constructed or new construction building on a revocable basis limited to the duration of time during which the conditions set forth below are satisfied and the building continues occupancy as the original design specified in the construction drawings permitted by the county as a newly constructed or new construction building.

If the conditions are no longer satisfied, the natural gas infrastructure shall either be capped, otherwise terminated, or removed in a manner pursuant to all applicable Codes in this subchapter. The following uses are subject to this exemption:

- (a) A newly constructed or new construction building meeting the definition of “food service establishment” in §19.04.120(20). The scope of the exemption extends to the preparation of food only, not HVAC, or water heating appliances.

SECTION III: SECTION 19.07.05 OF SUBCHAPTER 2 OF MARIN COUNTY CODE CHAPTER 19.07 IS AMENDED

19.07.050 – Compliance

Compliance with the requirements of this chapter shall be demonstrated through any of the compliance options in Sections 19.07.050.2 through 19.07.050.5.

Table 19.07.050 Cement and Embodied Carbon Limit Pathways

| | Cement limits for use with any compliance method 19.07.050.2 through 19.07.050.5 | Embodied Carbon limits for use with any compliance method 19.07.050.2 through 19.07.050.5 |
|--|--|---|
| Minimum specified compressive strength f'_c , psi (1) | Maximum ordinary Portland cement content, lbs/yd ³ (2) | Maximum embodied carbon kg CO ₂ e/m ³ , per EPD |
| up to 2500 | 362 | 260 |
| 3000 | 410 | 289 |
| 4000 | 456 | 313 |
| 5000 | 503 | 338 |
| 6000 | 531 | 356 |
| 7000 | 594 | 394 |
| 7001 and higher | 657 | 433 |
| up to 3000 light weight | 512 | 578 |
| 4000 light weight | 571 | 626 |
| 5000 light weight | 629 | 675 |
| Notes | | |
| 1. For concrete strengths between the stated values, use linear interpolation to determine cement and/or embodied carbon limits. | | |
| 2. Portland cement of any type per ASTM C150 <u>or ASTM C595</u> | | |

SECTION IV: EFFECTIVE DATE AND PUBLICATION

Pursuant to Government Code §25123, this Ordinance shall become effective on January 1, 2023, provided that the additional energy efficiency requirements of this Ordinance cannot be

enforced by the County until it has further been approved by the California Energy Commission (Cal. Pub. Res. Code §25402.1(h)(2)).

In accordance with Government Code §25124(b)(1), a summary of this Ordinance shall also be published before the expiration date of fifteen (15) days after its passage, with the names of the Supervisors voting for and against the same in the Marin Independent Journal, a newspaper of general circulation published in the County of Marin. A certified copy of the full text of this Ordinance along with the names of those Board of Supervisors members voting for and against the ordinance shall also be posted in the office of the Marin County Board of Supervisors. This ordinance is enacted pursuant to and in compliance with Cal. Health and Safety Code §17958 §17958.5, §17958.7 and §18941.5; and Cal. Public Resources Code Section 25402.1(h)(2).

Prior to the effective date, a copy of this Ordinance shall be filed with the California Building Standards Commission complete with local findings for each local amendment to the California Building Standards Code, as required by Cal. Health and Safety § 17959.

SECTION V: SEVERABILITY

Every section, paragraph, clause, and phrase of this Ordinance is hereby declared to be severable. If for any reason, any section, paragraph, clause, or phrase is held to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the validity or constitutionality of the remaining sections, paragraphs, clauses or phrases, and the remaining portions of this ordinance shall continue in full force and effect unless amended or modified by the County.

SECTION VI: CALIFORNIA ENVIRONMENTAL QUALITY ACT

This Ordinance was assessed in accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the environmental regulations of the County. The Board of Supervisors hereby finds that pursuant to CEQA Guidelines section 15378(b)(5), action on this item is not a project subject to CEQA because it is an administrative governmental activity which will not cause a direct or indirect physical change in the environment. The Board of Supervisors also finds that under section 15061(b)(3) of the State CEQA Guidelines, this Ordinance is exempt from the requirements of CEQA because it can be seen with certainty that the provisions contained herein would not have the potential for causing a significant effect on the environment. Further, it also finds the Ordinance is exempt from the requirements of CEQA pursuant to CEQA Guidelines sections 15307 and 15308 as an action by a regulatory agency taken to protect the environment and natural resources.

SECTION VII: VOTE

Notice of this Ordinance was published pursuant to Government Code §50022.3, §6066, and §25124(b)(1), and a certified copy of the full text of this Ordinance was posted in the office of the Clerk of the Marin County Board of Supervisors at least five (5) days prior to the Board of Supervisors meeting at which it was adopted.

PASSED AND ADOPTED at a regular meeting of the Board of Supervisors of the County of Marin held on this 15th day of November 2022 by the following vote:

AYES:

NOES:

ABSENT:

PRESIDENT, BOARD OF SUPERVISORS

ATTEST:

CLERK