

ORDINANCE NO. 2020- ____

**CITY OF MILLBRAE, COUNTY OF SAN MATEO
STATE OF CALIFORNIA**

AN ORDINANCE OF THE CITY OF MILLBRAE ADOPTING AMENDMENTS TO THE MUNICIPAL CODE TO REQUIRE BUILDING ELECTRIFICATION, SOLAR ENERGY SYSTEMS, AND ELECTRIC VEHICLE INFRASTRUCTURE ON NEWLY CONSTRUCTED SINGLE-FAMILY RESIDENCES, MULTIFAMILY BUILDINGS, AND NON-RESIDENTIAL BUILDINGS TO REDUCE GREENHOUSE GAS EMISSIONS

WHEREAS, the California Energy Code, 2019 Edition, Title 24, Part 6 of the California Code of Regulations was adopted by the City of Millbrae (City) on October 22, 2019; and

WHEREAS, the City’s Climate Action Plan includes increased energy efficiency, use of renewable energy sources, and electric vehicle charging station expansion by implementing “Reach Codes” for building electrification, electric vehicle infrastructure, and non-residential solar photovoltaic systems; and

WHEREAS, Peninsula Clean Energy has provided support and technical resources to jurisdictions to adopt a Reach Code including model ordinances and cost effectiveness studies; and

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

WHEREAS, the California Energy Code is a part of the California Building Standards which implements minimum energy efficiency standards in buildings through mandatory requirements, prescriptive standards, and performances standards; and

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

WHEREAS, the City Council of the City of Millbrae finds that each of the amendments, additions, and deletions to the California Energy Code contained in this ordinance are reasonably necessary because of local climatic, geological, or topographical conditions described in Section 5; and

WHEREAS, Public Resources Code Section 25402.1(h)2 and Section 10-106. of the Building Energy Efficiency Standards (Standards) establish a process which allows local adoption of energy standards that are more stringent than the statewide Standards, provided that such local standards are cost effective and the California Energy Commission finds that the standards will require buildings to be

designed to consume no more energy than permitted by the California Energy Code; and

WHEREAS, the California Codes and Standards Reach Code Program has determined specific modifications to the 2019 State Energy Code for each climate zone that are cost effective; and

WHEREAS, such modifications will result in designs that consume less energy than they would under the 2019 State Energy Code.

THEREFORE, IT IS ORDAINED by the City Council of the City of Millbrae as follows:

SECTION 1. AMENDMENT OF CHAPTER 9.50, “ENERGY CODE” OF THE MILLBRAE MUNICIPAL CODE.

Chapter 9.50 of the Millbrae Municipal Code is hereby amended as follows:

CHAPTER 9.50: ENERGY CODE

Sections:

- 9.50.010 Adoption of the California Energy Code, Title 24, Part 6, 2019 Edition
- 9.50.020 Amendment to Section 100.0
- 9.50.030 Amendment to Section 100.1
- 9.50.040 Amendment to Section 110.2
- 9.50.050 Amendment to Section 100.3
- 9.50.060 Amendment to Section 100.4
- 9.50.070 Amendment to Section 100.5
- 9.50.080 Amendment to Section 140.0

9.50.010 Adoption of the California Energy Code, Title 24, Part 6, 2019 Edition.

The code of rules and regulations known and designated as the California Energy Code, 2019 Edition, with the California State Amendments, hereinafter called the energy code, which establishes the minimum requirements for effective use of energy in the design of new buildings and structures and additions to existing buildings, printed in book form and filed in the office of the city clerk is adopted and by reference incorporated in this chapter as if fully set forth as the energy code of the city establishing the rules, regulations and standards as to all matters therein contained, subject, however, to the amendments, additions, and deletions set forth in this chapter. One copy of the energy code shall, at all times, be kept on file in the office of the building official.

9.50.020 Amendment to Section 100.0

Section 100.0(e) is amended by replacing language to read as follows:

SECTION 100.0 – Scope

...

(e) Sections applicable to particular buildings. TABLE 100.0-A and this subsection list the provisions of Part 6 that are applicable to different types of buildings covered by Section 100.0(a).

1. All buildings. Sections 100.0 through 110.12 apply to all buildings.
EXCEPTION to Section 100.0(e) 1: Spaces or requirements not listed in TABLE 100.0-A.
2. Newly constructed buildings.
 - A. All newly constructed buildings. Sections 110.0 through 110.12 apply to all newly constructed buildings within the scope of Section 100.0(a). In addition, newly constructed buildings shall meet the requirements of Subsections B, C, D or E, as applicable and shall be an All-Electric Building as defined in Section 100.1(b). For the purposes of All-Electric Building requirements, newly constructed buildings as defined in Section 100.1 shall not include newly constructed additions and tenant improvements in existing buildings.

Exception 1: Non-Residential Buildings containing a Scientific Laboratory Building, such area may contain a non-electric Space Conditioning System.

Exception 2: All one family, two family, ADUs, and low-density residential buildings may contain non-electric Cooking Appliances and Fireplaces.

Exception 3: Multifamily residential building projects that have been granted entitlements within one year or less before the effective date of this ordinance are not required to install all-electric water heating systems. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with the pre-wiring provision of Note 1 below.

Exception 4: Public agency owned and operated emergency centers.

Exception 5: If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the Energy Code, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Code using commercially available technology and an approved calculation method, then the Community Development Director or his/her designee may grant a modification. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with the pre-wiring provision of Note 1 below.

Conditional Exception 6: Non-residential buildings containing a for-profit restaurant open to the public or an employee kitchen may apply to the Community Development Director, or his/her designee, for an exception to install gas-fueled cooking appliances. This request must be based on a business-related reason to cook with a flame that cannot be reasonably achieved with an electric fuel source. Examples include barbeque-themed restaurants and pizza ovens. The exception shall be granted if the following four items are found:

1. There is a business-related reason to cook with a flame;
2. This need cannot be reasonably achieved with an electric fuel source;
3. The applicant has employed reasonable methods to mitigate the greenhouse gas

impacts of the gas-fueled appliance;

4. The applicant shall comply with the pre-wiring provision of Note 1 below.

Note 1: If natural gas appliances are used in any of the above exceptions 1-6, natural gas appliance locations must also be electrically pre-wired for future electric appliance installation. They shall include the following:

1. A dedicated circuit, phased appropriately, for each appliance, with a minimum amperage requirement for a comparable electric appliance (see manufacturer's recommendations) with an electrical receptacle or junction box that is connected to the electric panel with conductors of adequate capacity, extending to within 3 feet of the appliance and accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors;
2. Both ends of the conductor or conduit shall be labeled with the words "For Future Electric appliance" and be electrically isolated;
3. A circuit breaker shall be installed in the electrical panel for the branch circuit and labeled for each circuit, an example is as follows (i.e. "For Future Electric Range;") and
4. All electrical components, including conductors, receptacles, junction boxes, or blank covers, related to this section shall be installed in accordance with the California Electrical Code.

Note 2: If any of the exceptions 1-6 are granted, the Building Official shall have the authority to approve alternative materials, design, and methods of construction or equipment per CBC 104.

9.50.030 Amendment to Section 100.1

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

ALL ELECTRIC BUILDING: is a building that has no natural gas or propane plumbing installed within the building, and that uses electricity as the source of energy for its space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances. All Electric Buildings may include solar thermal pool heating.

SCIENTIFIC LABORATORY BUILDING: is a building or area where research, experiments, and measurement in medical, and life sciences are performed and/or stored requiring examination of fine details. The building may include workbenches, countertops, scientific instruments, and supporting offices.

9.50.040 Amendment to Section 110.2

Section 110.2 is modified as follows:

SECTION 110.2 – MANDATORY REQUIREMENTS FOR SPACE-CONDITIONING EQUIPMENT

Certification by Manufacturers. Any space-conditioning equipment listed in this section, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements of this section.

9.50.050 Amendment to Section 100.3

Section 110.3 is modified as follows:

SECTION 110.3 – MANDATORY REQUIREMENTS FOR SERVICE WATER-HEATING SYSTEMS AND EQUIPMENT

(a) Certification by Manufacturers. Any service water-heating system or equipment, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified that the system or equipment complies with all of the requirements of this subsection for that system or equipment.

9.50.060 Amendment to Section 100.4

Section 110.4 is modified as follows:

110.4 – MANDATORY REQUIREMENTS FOR POOL AND SPA SYSTEMS AND EQUIPMENT

(a) Certification by Manufacturers. Any pool or spa heating system or equipment, meeting the requirements of section 100.0 (e)2A, may be installed only if the manufacturer has certified that the system or equipment has all of the following:

1. Efficiency. A thermal efficiency that complies with the Appliance Efficiency Regulations; and
2. On-off switch. A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting; and
3. Instructions. A permanent, easily readable, and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used; and
4. Electric resistance heating. No electric resistance heating.

Exception 1 to Section 110.4(a)4: Listed package units with fully insulated enclosures, and with tightfitting covers that are insulated to at least R-6.

Exception 2 to Section 110.4(a)4: Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy.

9.50.070 Amendment to Section 100.5

Section 110.5 is modified as follows:

SECTION 110.5 – CENTRAL FURNACES, COOKING EQUIPMENT, POOL AND SPA HEATERS, AND FIREPLACES: PILOT LIGHTS PROHIBITED

Any equipment, meeting the requirements of Section 100.0 (e)2A, listed below may be installed only if it does not have a continuously burning pilot light:

9.50.080 Amendment to Section 140.0

Section 140.0(b) is modified as follows:

SECTION 140.0 – PERFORMANCE AND PRESCRIPTIVE COMPLIANCE APPROACHES

(b)The requirements of Sections 120.0 through 130.5 (mandatory measures for nonresidential, high-rise residential and hotel/motel buildings) and for all newly constructed buildings:

1. A solar photovoltaic (PV) system equivalent in size to 50 percent of the roof area, excluding any skylight area, shall be installed on the roof or overhang of the building or on the roof or overhang of another structure located within 250 feet of the building or on covered parking installed with the building project.

Exception 1 to 140.0(b)1: The Community Development Director or his/her designee may grant a modification if the applicant demonstrates that the required percentage of PV installation will over-generate the annual kWh required to operate the proposed building;

Exception 2 to 140.0(b)1: The PV system size may be reduced in size to the maximum that can be accommodated by the effective annual solar access due to shading from existing permanent natural or manmade barriers external to the building, including but not limited to trees, hills, and adjacent structures. The effective annual solar access shall be 70 percent or greater of the output of an unshaded PV array on an annual basis. No PV system is required if the effective annual solar access is restricted to less than 200 contiguous square feet. If the applicant demonstrates that conditions exist where excessive shading occurs, a performance equivalency approved by the Building Official may be used as an alternative;

Exception 3 to 140.0(b)1: If there is a vegetative roof which meets all relevant code requirements including considerations for wind, fire, and structural loads, the solar photovoltaic system may be reduced in size such that 50 percent area of the roof is covered in either photovoltaics or vegetative roof.

SECTION 2. AMENDMENT OF CHAPTER 9.35, “CALIFORNIA GREEN BUILDING CODE” OF THE MILLBRAE MUNICIPAL CODE.

Chapter 9.35 of the Millbrae Municipal Code is hereby amended to read as follows:

Chapter 9.35. GREEN BUILDING CODE

Sections:

- 9.35.010 Adoption of the California Green Building Code, Title 24, Part 6, 2019 Edition.
- 9.35.020 Amendment of Section 202.
- 9.35.030 Amendment of Section 4.106.4
- 9.35.040 Amendment of Section 4.106.4.1 through 4.106.4.5
- 9.35.050 Amendment of Section 5.106.5

9.35.010 Adoption of the California Green Building Code, Title 24, Part 6, 2019 Edition.

The code of rules and regulations known and designated as the California Green Building Code, 2019 Edition, with the California State Amendments, hereinafter called California Green Building Code, which establishes the minimum requirements for the effective use of green building in the design of new residential, commercial and industrial buildings and structures and also includes additions and alterations to all existing buildings and structures, printed in book form and filed in the office of the city clerk is adopted and by reference incorporated in this chapter as if fully set forth as the green building code of the city establishing the rules, regulations and standards as to all matters therein contained, subject, however, to the amendments, additions, and deletions set forth in this chapter. One copy of the California Green Building Code shall, at all times, be kept on file in the office of the building official.

9.35.020 Amendment of Section 202:

Section 202 is modified by adding the following definitions, and revising the definition of "Electrical Vehicle Charging Station":

AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS). A control system that allows multiple EV chargers or EV-Ready electric vehicle outlets to share an electrical circuit and automatically reduce power at each charger. ALMS systems must be designed to deliver at least 1.4kW to each EV Capable, EV Ready, or EVCS space served by the ALMS. The connected amperage on-site shall not be lower than the required connected amperage per Part 11, 2019 California Green Building Code for the relevant building types.

AFFORDABLE HOUSING. Residential buildings that entirely consist of units below market rate and whose rents or sales prices are governed by local agencies to be affordable based on area median income.

ELECTRIC VEHICLE (EV) CAPABLE. A listed electrical panel with sufficient capacity to provide a minimum 20 amperes to a designated charging space. Raceways from the electrical panel to the charging space(s) shall be installed to a charging space(s) only in locations that will be inaccessible in the future, either underground or where penetrations through walls, floors, or other partitions would otherwise be required for future installation of branch circuits. Raceways shall be at least 1” diameter and may be sized for multiple circuits as allowed by the California Electrical Code. The electric panel circuit directory shall identify the overcurrent protection device space(s) reserved for EV charging as “EV CAPABLE.” Construction documents shall identify the location of the raceway from the panel to the charging space.

ELECTRIC VEHICLE CHARGING STATION (EVCS). A parking space that includes installation of electric vehicle supply equipment (EVSE) according to the California

Electrical Code and with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement.

LEVEL 1 ELECTRIC VEHICLE (EV) READY SPACE. A complete electric circuit with a minimum 20-ampere capacity, including electrical panel capacity, overcurrent protection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, conductors, and either a) a receptacle, labelled “Electric Vehicle Outlet” with a minimum ½” font, adjacent to the parking space, or b) electric vehicle supply equipment (EVSE).

LEVEL 2 ELECTRIC VEHICLE (EV) READY SPACE. A complete electric circuit with a minimum 208/240 Volt, 40-ampere capacity, including electrical panel capacity, overcurrent protection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, conductors, and either a) a receptacle, labelled “Electric Vehicle Outlet” with a minimum ½” font, adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

9.35.030 Amendment of Section 4.106.4

Section 4.104.6 is amended to read as follows:

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to facilitate future installation and use of EV chargers.

Exceptions:

1. Where there is no commercial power supply.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities, unless the electrical panel is upgraded, or a new panel is installed in which case only the electrical capacity requirements apply.
3. Spaces accessible only by automated mechanical car parking systems.

9.35.040 Amendment of Section 4.106.4.1 through 4.106.4.5

Sections 4.106.4.1 through 4.106.4.5 are amended to read as follows:

4.106.4.1 New one- and two-family dwellings and town- houses with attached private garages. For each dwelling unit, install a Level 2 EV Ready Space and Level 1 EV Ready Space.

Exception: For each dwelling unit with only one parking space, install a Level 2 EV Ready Space.

4.106.4.1.1 Identification. The raceway termination location shall be permanently and visibly marked as “Level 2 EV-Ready”.

4.106.4.2 New multifamily dwellings. The following requirements apply to all new

multifamily dwellings:

1. For multifamily buildings with less than or equal to 20 dwelling units, one parking space per dwelling unit with parking shall be provided with a Level 2 EV Ready Space.
2. When more than 20 multifamily dwelling units are constructed on a building site:
 - a. 25% of the dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number.
 - b. In addition, each remaining dwelling unit with parking space(s) shall be provided with at least a Level 1 EV Ready Space.

Exception: For all multifamily Affordable Housing, 10% of dwelling units with parking space(s) shall be provided with at least one Level 2 EV Ready Space. Calculations for the required minimum number of Level 2 EV Ready spaces shall be rounded up to the nearest whole number. The remaining dwelling units with parking space(s) shall each be provided with at least a Level 1 EV Ready Space.

Notes:

1. ALMS may be installed to decrease electrical services and transformer capacity associated with EV Charging Equipment subject to review of the authority having jurisdiction.
2. Installation of Level 2 EV Ready Spaces above the minimum number required level may offset the minimum number Level 1 EV Ready Spaces required on a 1:1 basis.
3. The requirements apply to multifamily buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.
4. Multifamily residential building projects that have been granted entitlements within one year before the effective date of this ordinance shall provide at least ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, with Level 2 EV Ready Circuits. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.
5. The City may consider allowing exceptions, on a case by case basis, if a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among parking spaces with Level 2 EV Ready Spaces and Level 1 EV Ready Spaces. If costs are found to exceed this level, the applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.
6. In order to adhere to accessibility requirements in accordance with California Building Code Chapters 11A and/or 11B, it is recommended that

all accessible parking spaces for covered newly constructed multifamily dwellings are provided with Level 1 or Level 2 EV Ready Spaces.

4.106.4.2.1.1 Electric vehicle charging stations (EVCS). When EV chargers are installed, EV spaces shall comply with at least one of the following options:

1. The EV 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 EV 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 4.106.4.2.1.1.

Note: Electric vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. Refer to the City's zoning regulations for parking space dimension requirements.

4.106.4.2.3 Intentionally deleted.

4.106.4.2.4 Intentionally deleted.

4.106.4.2.5 Intentionally deleted.

9.35.050 Amendment of Section 5.106.5.3

Section 5.106.5.3 is amended in its entirety to read as follows:

5.106.5.3 Electric vehicle (EV) charging. [N] New construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation and use of EV chargers. *Electrical vehicle supply equipment (EVSE) shall be installed in accordance with the California Building Code, the Electrical Code.*

Exceptions

1. Where there is no commercial power supply.
2. Spaces accessible only by automated mechanical car parking systems.

5.106.5.3.1 Office buildings: In non-residential new construction buildings designated primarily for office use with parking:

1. When 10 or more parking spaces are constructed, 10% of the available parking spaces on site shall be equipped with Level 2 EVCS;

2. An additional 10% shall be provided with at least Level 1 EV Ready Spaces; and
3. An additional 30% shall be at least EV Capable.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS, Level 1 EV Ready spaces and EV Capable spaces shall all be rounded up to the nearest whole number.

Construction plans and specifications shall demonstrate that all raceways shall be a minimum of 1” and sufficient for installation of EVCS at all required Level 1 EV Ready and EV Capable spaces; Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers, and have sufficient capacity to simultaneously charge EVs at all required EV spaces including Level 1 EV Ready and EV Capable spaces; and service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

Note:

1. ALMS may be installed to increase the number of EV chargers or the amperage or voltage beyond the minimum requirements in this code. The option does not allow for installing less electrical panel capacity than would be required without ALMS.

5.106.5.3.2 Other non-residential buildings: In non-residential new construction buildings that are not designated primarily for office use, such as retail or institutional uses:

1. When 10 or more parking spaces are constructed, 6% of the available parking spaces on site shall be equipped with Level 2 EVCS;
2. An additional 5% shall be at least Level 1 EV Ready.

Calculations for the required minimum number of spaces equipped with Level 2 EVCS and Level 1 EV Ready spaces shall be rounded up to the nearest whole number.

Exception: Installation of each Direct Current Fast Charger with the capacity to provide at least 80 kW output may substitute for 6 Level 2 EVCS and 5 EV Ready spaces after a minimum of 6 Level 2 EVCS and 5 Level 1 EV Ready spaces are installed.

5.106.5.3.3 Clean Air Vehicle Parking Designation. EVCS qualify as designated parking as described in Section 5.106.5.2 Designated Parking for Clean Air Vehicles.

Notes:

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. www.dot.ca.gov/hq/traffops/policy/13-01.pdf
2. See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
3. The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf
4. Section 11B-812 of the California Building Code requires that a facility providing EVCS for public and common use also provide one or more accessible EVCS as specified in Table 11B-228.3.2.1.
5. It is encouraged that EV Ready Spaces in shared parking are designated as "EV preferred."

5.106.5.3.4 [N] Identification. The raceway termination location shall be permanently and visibly marked as "EV Ready."

SECTION 3: EXEMPTION FROM CEQA.

The City Council finds, pursuant to Title 14 of the California Administrative Code, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act ("CEQA") on the grounds that these standards are more stringent than the State energy standards, there are no reasonably foreseeable adverse impacts and there is no possibility that the activity in question may have a significant effect on the environment.

SECTION 4: SEVERABILITY

If any provision of this ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect any other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end, the provisions of this ordinance are severable.

SECTION 5: FINDINGS OF FACT. CHANGES TO THE ENERGY AND GREEN BUILDING CODES ARE REASONABLY NECESSARY AS FOLLOWS.

Findings of Fact

For the purposes of this ordinance, the City Council of the City of Millbrae hereby makes the following findings, as required by Sections 13143.5, 17958.5, 17958.7, and 18941.5 of the California Health and Safety Code. The City Council finds and declares that the unique characteristics of the topographic, geologic, and climatic conditions found in Millbrae make the local amendments to Title 24 reasonable and necessary.

Finding 1: Topographic

The City of Millbrae is contiguous with the San Francisco Bay, resulting in a natural receptor for storm and waste water run-off. The topography ranges from the flatlands closer to the San Francisco Bay (approximately seven feet above mean sea level) to the western portion of the City at 485 feet in elevation. Millbrae's hills include residences and contain plenty of open space and forested areas which could lead to combustible conditions during the dry months. The conditions within the City create hazardous conditions for which departure from California Building Standards Code is warranted.

Finding 2: Geologic

Millbrae is classified as Seismic Design Category E, which is the most severe earthquake category. Buildings and other structures in Category E can experience major seismic damage. For Millbrae the active faults are the San Andreas Fault and the Hayward Fault. The San Andreas Fault runs from Hollister, through the Santa Cruz Mountains, (epicenter of the 1989 Loma Prieta earthquake,) up the San Francisco Peninsula, then offshore at Daly City near Mussel Rock—this is the approximate location of the epicenter of the 1906 San Francisco earthquake. The Hayward Fault is about 74 miles long, situated mainly along the western base of the hills on the east side of San Francisco Bay. Both of these faults are considered major northern California earthquake faults which may experience rupture at any time.

Earthquake activity with nearby epicenters has the potential for inducing landslides which can create situations of reduced emergency response times and restoration of power utilities. Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities and natural gas infrastructure, which in turn cause power failures while at the same time starting fires or gas explosions throughout the County. There is a need to reduce dependence on the natural gas infrastructure to reduce harms and increase energy resiliency in the event of an earthquake. The modifications and changes cited herein are designed to reduce natural gas hazards in buildings and encourage energy resiliency through increased installation of solar and storage systems.

Finding 3: Climatic

The City is located in Climate Zone 3 as established in the 2019 California Energy Code. Climate Zone 3 incorporates mostly coastal communities from Marin County to southern Monterey County including San Francisco. The City experiences precipitation ranging from 20 to 25 inches per year with an average of approximately 23 inches per year. 96% of precipitation falls during the months of November through April and 4% from May through September. This is a dry period of at least five months each year. Additionally, the area is subject to frequent periods of drought and the area recently suffered through an unprecedented seven-year drought. Similar periods of extended drought may be expected locally in the future. Relative humidity remains in the middle range most of the time. Temperatures in the summer average around 70 degrees Fahrenheit and in the winter in the mid 50 degrees Fahrenheit. Prevailing winds in the area come from the west

with velocities generally in the 9 miles per hour range and can be gusting on occasion in the spring. Climate change is causing historic droughts, devastating wildfires, torrential storms, extreme heat, property damage, and threats to human health and food supplies. The State of California has outlined specific steps to reduce greenhouse gas emissions to prevent these negative impacts of changing climate, including moving the State to 100 percent clean energy by 2045. This gives local governments the opportunity to achieve greenhouse gas emission reductions with a climate positive impact by powering buildings from clean electricity.

Planned new buildings in Millbrae will be built near the coastline, which creates an increasing potential flooding risk with climate change as a result of human generated greenhouse gas emissions. Millbrae is vulnerable to sea level rise where new development is proposed. New buildings that are directly vulnerable to sea level rise should avoid generating additional greenhouse gas emissions. The proposed Reach Code would ensure that new buildings use cleaner sources of energy that are greenhouse gas free.

The proposed Electric Vehicle Reach Code ensures that new buildings can charge a greater number of electric vehicles beyond state code requirements and reduce greenhouse gas emissions. These climatic conditions along with the greenhouse emissions generated from structures in both the residential and non-residential sectors requires exceeding the energy standards for building construction established in the 2019 California Buildings Standards Code.

SECTION 7 EFFECTIVE DATE; PUBLICATION; POSTING.

This ordinance shall be in full force and effect thirty days from its passage and the regulations contained in this ordinance shall be enforced as of January 1, 2021. At least five days prior to its adoption and within fifteen days after its adoption, a summary of this ordinance shall be published once in a newspaper of general circulation printed and published in the County of San Mateo and circulated in the City of Millbrae.

INTRODUCED at a regular meeting of the City Council of the City of Millbrae held on October 27, 2020.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Millbrae held on November 10, 2020 by the following roll call vote:

AYES:
NOES:
ABSENT:

MAYOR

ATTEST:

CITY CLERK