

Chapter 12.16  
California Energy Code Amendments

**Sections:**

**12.16.010 – California Energy Code amendments.**

**12.16.020 – Prohibition on Conversion to Mixed-Fuel Buildings.**

**12.16.010 – California Energy Code amendments.**

The 2022 California Energy Code, Part 6 of the California Building Standards Code, Title 24 California Code of Regulations is amended with the modifications set forth below:

Section 100.0(e), paragraphs (1) and (2) are modified 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).

Exception 1: Non-Residential Buildings containing a Scientific Laboratory Building, such area may apply for approval to contain a non-electric Space Conditioning System or appliances or laboratory equipment, subject to demonstrating infeasibility or lack of cost-effectiveness in accordance with administrative guidelines as may be established by the Building Official.

To take advantage of this exception applicant shall provide third party verification that All-Electric space heating requirement is not cost effective and feasible.

Exception 2: All Residential buildings may contain non-electric Cooking Appliances and Fireplaces except buildings defined in the Energy Code as “Multifamily buildings” that are four stories or more.

Exception 3: Exemption for public agency owned and operated emergency centers. To take advantage of this exception applicant shall provide third party verification that All-Electric space heating requirement is not cost effective and feasible.

Exception 4: Non-residential buildings containing a for-profit restaurant open to the public or an employee kitchen may apply to the Environmental Quality Commission (EQC) 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 Environmental Quality Commission (EQC) shall grant this exception if they find the following:

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.

The Environmental Quality Commission's decision shall be final unless the applicant appeals to the City Council within 15 days of the appointed body's decision. The City Council's decision on the appeal shall be final.

Note 1: If natural gas appliances are used in any of the above exceptions 1-4, 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 unused conductor or conduit shall be labeled with the words "For Future Electric appliance" and be electrically isolated;
3. A reserved circuit breaker space shall be installed in the electrical panel adjacent to the circuit breaker 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 1-4 are granted, the Building Official shall have the authority to approve alternative materials, design and methods of construction or equipment per CBC 104.

Subdivision (b), Definitions, of Section 100.1 — Definitions and Rules of Construction, is modified by adding the following definitions of "All Electric Building" "Scientific Laboratory Building" and replacing the definition of "Shading" as follows:

**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, 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.

**SHADING** is the protection from heat gains because of direct solar radiation by permanently attached exterior devices of building elements, interior shading devices, glazing material,

adherent materials, including items located outside the building footprint such as heritage trees or Multifamily buildings that may affect shading.

Section 110.2, Mandatory Requirements for Space Conditioning Equipment is amended for the first paragraph to read as follows:

Certification by Manufacturers. Any space-conditioning equipment listed in this section, may be installed only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements of this section and the building will still meet applicable All-Electric Building requirements as set forth in section 100.0 (e)2A.

Subdivision (a), Certification by manufacturers, of Section 110.3, Mandatory Requirements for Service Water-Heating Systems and Equipment, is modified for the first sentence to read as follows:

- a) Certification by manufacturers. Any service water-heating system or equipment 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, and the building will still meet applicable All-Electric Building requirements as set forth in section 100.0 (e)2A.

Subdivision (a), Certification by manufacturers, of Section 110.4, Mandatory Requirements for Pool and Spa Systems and Equipment, is modified to read as follows:

- a) Certification by Manufacturers. Any pool or spa heating system or equipment, may be installed only if the manufacturer has certified that the system or equipment has all of the following, and the building will still meet applicable All-Electric Building requirements as set forth in section 100.0 (e)2A.:
  1. Efficiency. For equipment subject to state or federal appliance efficiency standards, listings in the commissions directory of certified equipment showing compliance with applicable standards; 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 tight-fitting 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.
- b) Installation. Any pool or spa system or equipment shall be installed between with all of the following:
  1. Piping. At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connection shall be installed to allow for the future addition of solar heating equipment;
  2. Covers. A cover for outdoor pools or outdoor spas that have a heat pump or gas heater; and
  3. Directional inlets and time switches for pools. If the system or equipment is for a pool:
    - i. The pool shall have directional inlets the adequately mix the pool water; and

- ii. A time switch or similar control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during off-peak electric demand periods, and for the minimum time necessary to maintain the water the condition required by applicable public health standards.

Subdivision (a), Certification by manufacturers, of Section 110.5, Natural Gas Central Furnaces, Cooking Equipment, Pool and Spa Heaters, is modified for the first sentence to read as follows:

Any natural gas system or equipment listed below may be installed only if it does not have a continuously burning pilot light, and the building will still meet applicable All-Electric Building requirements as set forth in section 100.0 (e)2A:

- a. Fan-type central furnaces.
- b. Household cooking appliances

Exception to Section 110.5(b): Household cooking appliances without an electrical supply voltage connection and in which each pilot consumes less than 150 Btu/hr.

- c. Pool Heaters
- d. Spa Heaters
- e. Indoor and outdoor fireplaces.

Section 110.10, Mandatory Requirements for Solar Readiness, is amended to read as follows:

**SECTION 110.10 – Mandatory Requirements for Solar Readiness.**

a) Covered Occupancies.

1. Single Family Residences. Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete approved by the enforcement agency, which do not have a photovoltaic system installed, shall comply with the requirements of Section 110.10(b) through 110.10(e).
2. Low-rise multifamily buildings. Residential buildings, other than single family, with less than 4 stories that do not have a photovoltaic system installed shall comply with the requirements of Section 110.10(b) through 110.10(d).
3. Hotel/motel occupancies and high rise multifamily buildings that do not have a photovoltaic system installed shall comply with the requirements of Section 110.10(b) through 110.10(d) and Table 2.
4. Nonresidential buildings with three habitable stories or fewer, other than I-2 and I-2.1 buildings, that do not have a photovoltaic system installed, shall comply with the requirements of Sections 110.10(b) through 110.10(d) and Table 2.

<b>Table 2: Solar panel requirements for all new nonresidential and high rise residential buildings</b>	
<b>Square footage of building</b>	<b>Size of panel</b>
Less than 10,000 sq. ft.	Minimum of 3-kilowatt PV systems

<b>Table 2: Solar panel requirements for all new nonresidential and high rise residential buildings</b>	
<b>Square footage of building</b>	<b>Size of panel</b>
Greater than or equal to 10,000 sq. ft.	Minimum of 5-kilowatt PV systems
EXCEPTION: As an alternative to a solar PV system, the building type may provide a solar hot water system (solar thermal) with a minimum collector area of 40 square feet, additional to any other solar thermal equipment otherwise required for compliance with Part 6.	

b) Solar Zone.

1. Minimum Solar Zone Area. The solar zone shall have a minimum total area as described below. The solar zone shall comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area shall be comprised of areas that have no dimension less than five feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet.

A. Single Family Residences. The solar zone shall be located on the roof or overhang of the building and have a total area no less than 250 square feet.

EXCEPTION 1 to Section 110.10(b)1A: Single family residences with a permanently installed domestic solar water-heating system meeting the installation criteria specified in the Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.50.

EXCEPTION 2 to Section 110.10(b)1A: Single family residences with three habitable stories or more and with a total floor area less than or equal to 2000 square feet and having a solar zone total area no less than 150 square feet.

EXCEPTION 3 to Section 110.10(b)1A: Single family residences located in the Wildland-Urban Interface Fire Area as defined in Title 24, Part 2 and having a whole house fan and having a solar zone total area no less than 150 square feet.

EXCEPTION 4 to Section 110.10(b)1A: Buildings with a designated solar zone area that is no less than 50 percent of the potential solar zone area. The potential solar zone area is the total area of any low-sloped roofs where the annual solar access is 70 percent or greater and any steep-sloped roofs oriented between 90 degrees and 300 degrees of true north where the annual solar access is 70 percent or greater. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.

EXCEPTION 5 to Section 110.10(b)1A: Single family residences having a solar zone total area no less than 150 square feet and where all thermostats are demand responsive controls and comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.

EXCEPTION 6 to Section 110.10(b)1A: Single family residences meeting the following conditions:

- A. All thermostats are demand responsive controls that comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency.
- B. Comply with one of the following measures:
  - i. Install a dishwasher that meets or exceeds the ENERGY STAR Program requirements with a refrigerator that meets or exceeds the ENERGY STAR Program requirements, a whole house fan driven by an electronically commutated motor, or an SAE J1772 Level 2 Electric Vehicle Supply Equipment (EVSE or EV Charger) with a minimum of 40 amperes; or
  - ii. Install a home automation system capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals; or
  - iii. Install alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances; or
  - iv. Install a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65 percent of the available roof area.

B. Low-rise and High-rise Multifamily Buildings, Hotel/Motel Occupancies, and Nonresidential Buildings. The solar zone shall be located 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, and shall have a total area no less than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.

EXCEPTION 1 to Section 110.10(b)1B: High-rise Multifamily Buildings, Hotel/Motel Occupancies, and Nonresidential Buildings with a permanently installed solar electric system having a nameplate DC power rating, measured under Standard Test Conditions, of no less than one watt per square foot of roof area.

EXCEPTION 2 to Section 110.10(b)1B: High-rise multifamily buildings, hotel/motel occupancies with a permanently installed domestic solar water-heating system complying with Section 150.1(c)8Biii and an additional collector area of 40 square feet.

EXCEPTION 3 to Section 110.10(b)1B: Buildings with a designated solar zone area that is no less than 50 percent of the potential solar zone area. The potential solar zone area is the total area of any low-sloped roofs where the annual solar access is 70 percent or greater and any steep-sloped roofs oriented between 90 degrees and 300 degrees of true north where the annual solar access is 70 percent or greater. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the

roof or any other part of the building shall not be included in the determination of annual solar access.

EXCEPTION 4 to Section 110.10(b)1B: Low-rise and high-rise multifamily buildings with all thermostats in each dwelling unit are demand response controls that comply with Section 110.12(a), and are capable of receiving and responding to Demand Response Signals prior to granting of an occupancy permit by the enforcing agency. In addition, either A or B below:

- A. In each dwelling unit, comply with one of the following measures:
  - i. Install a dishwasher that meets or exceeds the ENERGY STAR Program requirements with either a refrigerator that meets or exceeds the ENERGY STAR Program requirements or a whole house fan driven by an electronically commutated motor; or
  - ii. Install a home automation system that complies with Section 110.12(a) and is capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals; or
  - iii. Install alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances; or
  - iv. Install a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65 percent of the available roof area.
- B. Meet the Title 24, Part 11, Section A4.106.8.2 requirements for electric vehicle charging spaces.

EXCEPTION 5 to Section 110.10(b)1B: Buildings where the roof is designed and approved to be used for vehicular traffic or parking or for a heliport.

EXCEPTION 6 to section 110.10(b)1B: Performance equivalency approved by the building official.

2. Azimuth. All sections of the solar zone located on steep-sloped roofs shall have an azimuth range and be oriented between 90 degrees and 300 degrees of true north.
3. Shading.
  - A. No obstructions, including but not limited to, vents, chimneys, architectural features, and roof mounted equipment, shall be located in the solar zone.
  - B. Any obstruction, located on the roof or any other part of the building that projects above a solar zone shall be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.

EXCEPTION to Section 110.10(b)3: Any roof obstruction, located on the roof or any other part of the building, that is oriented north of all points on the solar zone.

- C. The solar zone needs to account for shading from obstructions that may impact the area required in 110.10(b)1B. When determined by the Building Official that conditions exist where excessive shading occurs and solar zones cannot be met, a performance equivalency approved by the Building Official may be used as an alternative.

4. Structural Design Loads on Construction Documents. For areas of the roof designated as solar zone, the structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

NOTE: Section 110.10(b)4 does not require the inclusion of any collateral loads for future solar energy systems.

c) Interconnection Pathways.

1. The construction documents shall indicate a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service.
2. For single family residences and central water-heating systems, the construction documents shall indicate a pathway for routing of plumbing from the solar zone to the water-heating system.

d) Documentation. A copy of the construction documents or a comparable document indicating the information from Sections 110.10(b) through 110.10(c) shall be provided to the occupant.

e) Main Electrical Service Panel.

1. The main electrical service panel shall have a minimum busbar rating of 200 amps.
2. The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space shall be permanently marked as "For Future Solar Electric".

#### **12.16.020 – Prohibition on Conversion to Mixed-Fuel Buildings.**

No building that is required to be constructed as an All-Electric building, or that currently uses electricity as its sole fuel source for appliances, space conditioning systems, water heating systems, pool and spa systems, or any other building systems, shall be altered or modified to use any fuel source other than electricity for appliances, space conditioning systems, water heating systems, pool and spa systems, or any other building systems.

#### **SECTION 8: Amendment of Green Building Standards Code.**

Chapter 12.18 of Title 12 [Buildings and Construction] of the Menlo Park Municipal Code is hereby repealed and replaced to read in entirety as follows:

#### California Green Building Standards Code Amendments

##### **Sections:**

**12.18.010 – Amendments to Section 202 – Definitions.**

**12.18.020 – Amendment of Section 4.106.4 – Electric vehicle (EV) charging for new construction.**

**12.18.030 – Amendment of Section 4.106.4.1 – New one and two-family dwellings and town houses with attached private garages.**

**12.18.040 – Amendment of Section 4.106.4.2 – Multifamily dwellings with residential parking facilities.**

**12.18.050 – Amendment of Section 4.408.1 – Construction Waste Management.**

**12.18.060 – Amendment of Section 5.106.5.3 – Electric Vehicle Charging.**



**12.18.070 – Addition of Section 5.106.5.5.1 – Additions and Alterations.**

**12.18.080 – Amendment of Section 5.408.1 – Construction Waste Management.**

**12.18.010 – Amendment to Section 202 – Definitions.**

Section 202 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to (1) add definitions of Affordable Housing and Direct Current Fast Charging, Level 1 EV Ready, Level 2 EV Capable, Level 2 EV Ready, Low Power Level 2 EV Ready, and (2) revise definitions of Automatic Load Management System (ALMS), Electric Vehicle Charging Station, with enacted definitions to read as follows:

**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.

**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).** 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.

**LEVEL 1 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 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 2 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 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.

Conduit oversized to accommodate future Level 2 EV Ready (208/240 volt, 40-ampere) at each parking space.

#### **12.18.020 – Amendment of Section 4.106.4 – Electric Vehicle (EV) charging for new construction.**

Section 4.106.4 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

4.106.4 Electric vehicle (EV) charging. Residential construction shall comply with Section 4.106.4.1 or 4.106.4.2, and 4.106.4.3, 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 on 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 meeting the requirements will alter the local utility infrastructure design requirements may increase construction cost by an average of \$4,500 per parking space for market rate housing or \$400 per parking space for affordable housing. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service. For 100 percent Below Market Rate affordable housing developments, EVSE with a minimum of Level 2 ready shall be provided for a minimum of 10 percent of the total number of dwelling units.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units without additional parking facilities

**12.18.030 – Amendment of Section 4.106.4.1 – New one and two-family dwellings and town houses with attached private garages.**

Section 4.106.4.1 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

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

For each dwelling unit, one parking space provided shall be a Level 2 EV Ready space. If a second parking space is provided, it shall be provided with a Level 1 EV Ready space.

**12.18.040 – Amendment of Section 4.106.4.2 – Multifamily dwellings with residential parking facilities.**

Section 4.106.4.2 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended revise sections 4.106.4.2 and 4.106.4.2.1, and 4.106.4.2.2 to read as follows:

4.106.4.2 Multifamily dwellings with residential 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. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

4.106.4.2.1 New Construction. At least fifteen percent (15%) of dedicated parking spaces for any project shall be EVCS with minimum of Level 2 EV Ready. Automatic Load Management System (ALMS) shall be permitted to reduce load when multiple vehicles are charging. All remaining dedicated parking spaces required for a project shall, at a minimum, meet requirements to be considered a Low Power Level 2 EV Ready space. EVCS 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.

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. Construction plans and specifications shall include the following:

- The type and location of the vehicle supply equipment (EV Ready and / or EVSE).
- The raceway shall not be less than trade size 1"
- The raceway and wiring shall originate at a service panel or a subpanel serving the area and shall terminate into a receptacle or EVSE.
- The service panel or subpanel shall have sufficient capacity to accommodate a 208/240 minimum 40-ampere dedicated branch circuit for the future installation of the EVSE. The service panel or subpanel circuit directory shall identify the overcurrent protective device as "EV Ready or EV Capable" in accordance with the California Electrical Code
- 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 charge required EV at its full rated amperage
- Plan design shall be capable of accommodating a 208/240-volt dedicated circuit based upon 40 ampere branch circuit requirements. 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.

#### **4.106.4.2.2 EVCS Provisions.**

##### **4.106.4.2.2.1 Electric Vehicle Charging Stations (EVCS).**

Electric vehicle charging stations shall comply with the following requirements, except for EVCS 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):

###### **4.106.4.2.2.1.1 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 California Building Code, Chapter 2, to the building.

Exception: EVCS designed and constructed in compliance with California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

###### **4.106.4.2.2.1.2 EVCS Dimensions**

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

1. The minimum length of each EV space shall be 18 feet.
  2. The minimum width of each EV space shall be 9 feet.
  3. One in every 25 charging spaces, but not less than one, shall also have an 8-foot wide minimum aisle. A 5 foot wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet.
- 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.

#### **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.

### **12.18.050 – Amendment of Section 4.408.1 – Construction Waste Management.**

Section 4.408.1 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of both inert and non-inert nonhazardous demolition waste and 65 percent of both inert and non-inert nonhazardous construction waste in accordance with Section 4.408.2, 4.408.3 or 4.408.4 and meet the requirements of Chapter 12.48 Recycling and Salvaging of Construction and Demolition Debris City of Menlo Park Municipal Code.

Exceptions:

1. Excavated soil and land clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the job site.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

### **12.18.060 – Amendment of Section 5.106.5.3 – Electric Vehicle Charging.**

Section 5.106.5.3 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

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 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 5.106.5.3, may increase construction cost by an average of \$4,500 per parking space. EV infrastructure shall be provided up to the level that would not exceed this cost for utility service.

Table 5.106.5.3.1 of Chapter 5 is amended and replaced with:

Table A5.106.5.3.1 Electric Vehicle (EV) charging Tier 1 [N] shall be used to determine the number of EV capable spaces required. Refer to Section 5.106.5.3.2 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 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 System (ALMS).

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) <sup>2</sup>
0-9	2	0
10-25	5	2
26-50	11	4
76-100	26	9
101-105	38	13
151-150	38	13
151-200	53	18
201 and over	30 percent of total parking spaces <sup>1</sup>	33 percent of EV capable spaces <sup>1</sup>

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.

**12.18.070 – Addition of Section 5.106.5.5.1 – Additions and Alterations.**

Section 5.106.5.5.1 is added to the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

Section 5.106.5.5.1 Additions and Alterations. Level 2 EV capable spaces and EVSE spaces that meet Level 2 Ready requirements shall be constructed and installed for additions and alterations as specified below in Table 5.105.5.1.

Table 5.106.5.5.1 Additions and Alterations <sup>1</sup>		
	NUMBER OF REQUIRED LEVEL 2 EV CAPABLE SPACES	NUMBER OF REQUIRED EVSE THAT ARE LEVEL 2 EV READY <sup>3</sup>
1 - 9,999 sq.ft.	Voluntary	Voluntary
10,000 - 25,000 sq.ft.	5%	1 Can be located in an EV capable space
Greater than 25,000 sq.ft.	10%	One + 1% of total required parking spaces for the affected area. Can be located in an EV capable space

<sup>1</sup>The EV space requirement is based on the required parking associated with the building where the work is being performed, inclusive of landscape reserve parking. For additions and alterations, percentages are based on the required parking for the affected area of the scope of work.

<sup>2</sup>Calculations for spaces shall be rounded up to the nearest whole number.

<sup>3</sup>The maximum number of required EV spaces and electric vehicle supply equipment (EVSE) shall not exceed the requirement for EV spaces for new construction of an equivalent development on a parcel or project site unless it is voluntary.

Construction plans and specifications shall include, all of the below:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1"
4. The raceway shall originate at a service panel or a subpanel serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

6. 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 charge required EV at its full rated amperage. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

#### **12.18.080 – Amendment of Section 5.408.1 – Construction Waste Management.**

Section 5.408.1 of the California Green Building Standards Code, Part 11 of the California Building Standards Code, Title 24 California Code of Regulations is amended to read in entirety as follows:

5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of both inert and non-inert nonhazardous demolition waste and 65 percent of both inert and non-inert nonhazardous construction waste in accordance with Section 5.408.2, 5.408.3 or 5.408.4 and meet the requirements of Chapter 12.48 Recycling and Salvaging of Construction and Demolition Debris City of Menlo Park Municipal Code.

Exceptions:

1. Excavated soil and land clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the job site.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

#### **SECTION 9: Amendment of Section 12.32.050.**

Section 12.32.050 [Filing Fee] of Chapter 12.32 [Moving Buildings] of Title 12 [Buildings and Construction] of the Menlo Park Municipal Code is hereby amended to read in entirety as follows:

#### **Section 12.32.040 – Filing Fee.**

Prior to, or at the time of, filing any application for a permit to move or remove a building or structure a fee in an amount established by resolution of the City Council shall be paid to the building department by the applicant to defray the reasonable cost of investigations and other services required of the building department pursuant to this chapter. The filing fee provided in this section shall be in addition to other permit fees which are required to erect, construct, enlarge, alter, repair, improve and convert any structural, electrical, plumbing, and heating work required for any building, or to demolish any building or structure pursuant to other applicable laws or ordinances.

#### **SECTION 10: Enactment of Section 12.36.060.**

Section 12.36.060 [Pools under construction] is hereby added to Chapter 12.36 [Swimming Pools] of Title 12 [Buildings and Construction] of the Menlo Park Municipal Code, to read as follows:

#### **Section 12.36.060 – Pools under construction.**

During construction, pools shall be enclosed by a fence or solid structure with a height of 60-84 inches. The fence shall not have any openings larger than 50 square inches other than a gate. Fences with rectangular openings having a horizontal dimension 4 inches or less may exceed 50 square inches. All gates leading into the area shall be self-closing self-latching. The latch shall be at least 60 inches above the ground.