## **ORDINANCE NO. 1589**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN CARLOS AMENDING THE SAN CARLOS MUNICIPAL CODE CHAPTER 15.04 - TECHNICAL BUILDING CODES - TO ADOPT THE 2022 EDITIONS OF THE CALIFORNIA ADMINISTRATIVE CODE, CALIFORNIA BUILDING CODE (VOLUMES 1 AND 2), CALIFORNIA RESIDENTIAL CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ENERGY CODE, CALIFORNIA HISTORICAL CODE, CALIFORNIA EXISTING BUILDING CODE, CALIFORNIA GREEN BUILDING STANDARDS CODE, CALIFORNIA REFERENCED STANDARDS CODE, 1997 UNIFORM SECURITY CODE, THE 2021 EDITION OF THE INTERNATIONAL PROPERTY MAINTENANCE CODE WITH AMENDMENTS AND MODIFICATIONS, AND SAFETY ASSESSMENT PROGRAM (SAP) PLACARDS.

The City Council of the City of San Carlos does ordain as follows:

## **SECTION 1:**

**WHEREAS**, the 2022 California Building Code series has been released by the State of California and will go into effect January 1, 2023; and

**WHEREAS,** the amendments are intended to be reasonable, not overly burdensome, and in keeping with those proposed by neighboring cities within San Mateo County; and

**WHEREAS,** the State of California adopted Senate Bill ("SB") 100, which requires 100% clean electric grid by 2045; and

**WHEREAS**, the City of San Carlos seeks to readopt the current Reach Code that will enable the State of California to work toward achieving carbon neutrality by 2045; and

WHEREAS, reducing or eliminating natural gas usage in the building sector is an important component of climate mitigation to achieve the State of California's goal of carbon neutrality by 2045; and

**WHEREAS**, the City Council seek to meet the climate action goals set by the City of San Carlos, San Mateo County, and the State of California; and

**WHEREAS**, the goal of local Building Officials is to maintain Code consistency amongst jurisdictions by having as few local amendments as possible.

**SECTION 2:** Chapter 15.04, Sections 15.04.010, 15.04.020, 15.04.030, 15.04.040, 15.04.045, 15.04.050, 15.04.060, 15.04.070, 15.04.080, 15.04.090, 15.04.100, 15.04.120, 15.04.125, 15.04.130, 15.04.140, 15.04.150, 15.04.160, and 15.04.170 of the San Carlos Municipal Code is hereby amended as set forth in Exhibit A attached hereto.

**SECTION 3:** Severability. That the City Council hereby declares that it would have passed this Ordinance sentence by sentence, paragraph by paragraph, and section by section, and does hereby declare that any provisions of this Ordinance are severable and, if for any reason any

sentence, paragraph, or section of this Ordinance shall be held invalid, such decision shall not affect the validity of the remaining parts of this Ordinance.

**SECTION 4:** Effective Date. This Ordinance shall be published and posted according to law and shall take effect and be in force from and after 30-days after its passage and adoption.

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I, City Clerk Crystal Mui, herby certify that the foregoing Ordinance was introduced on the Oth day of October, 2022 and passed and adopted at a regular meeting of the City Council of the ity of San Carlos at a regular meeting thereof held on the 24th day of October, 2022, by the llowing vote:
YES, COUNCIL MEMBERS:
OES, COUNCIL MEMBERS:
BSENT, COUNCIL MEMBERS:
CITY CLERK of the City of San Carlos
PPROVED:
AYOR of the City of San Carlos

Exhibit A – San Carlos Municipal Code Chapter 15 Updates (redlined)

## **EXHIBIT A**

# Chapter 15.04

## **TECHNICAL BUILDING CODES\***

#### Sections:

- 15.04.010 Adoption of codes by reference—Copies on file.
- 15.04.020 City Council findings.
- 15.04.030 Title 24, Part 1, California Administrative Code.
- 15.04.040 Title 24, Part 2, California Building Code, Volumes 1 and 2, with appendices, amendments, and modifications.
- 15.04.045 Title 24, Part 2.5, California Residential Code with appendices, amendments, and modifications.
- 15.04.050 Title 24, Part 3, California Electrical Code, with amendments and modifications.
- 15.04.060 Title 24, Part 4, California Mechanical Code with appendices.
- 15.04.070 Title 24, Part 5, California Plumbing Code with appendices.
- 15.04.080 Title 24, Part 6, California Energy Code with appendices.
- 15.04.090 Title 24, Part 7.
- 15.04.100 Title 24, Part 8, California Historical Building Code.
- 15.04.110 Title 24, Part 9, California Fire Code.
- 15.04.120 Title 24, Part 10, California Existing Building Code.
- 15.04.125 Title 24, Part 11, California Green Building Standards Code (CALGreen).
- 15.04.130 Title 24, Part 12, California Referenced Standards Code.
- 15.04.140 1997 Uniform Building Security Code.
- 15.04.150 <u>2021</u>2018 International Property Maintenance Code.
- 15.04.160 Safety Assessment Program (SAP) placards.
- 15.04.170 Findings.

## 15.04.125 Title 24, Part 11, California Green Building Standards Code (CALGreen).

Title 24, Part 11, the California Green Building Standards Code (CALGreen), 20222019 Edition, is hereby adopted by reference, with the following amendments and modifications:

A. Section 202 of the Green Building Standards Code is amended to add definitions for "Electric Vehicle (EV) Capable," "Level 1 Electric Vehicle (EV) Ready Space," "Level 2 Electric Vehicle (EV) Ready Space," "Electric Vehicle Charging Station (EVSC)," and "Automated Load Management System (ALMS)" 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.

A.—ALL-ELECTRIC BUILDING. A building that contains no combustion equipment or plumbing for combustion equipment serving space heating (including fireplaces), water heating (including pools and spas), cooking appliances (including barbeques), Section 4.106.4.1- New one- and two-family dwellings and townhouses with attached private garages, is modified to read as follows to include Residential Reconstruction projects:

Section 4.106.1- New one- and two-family dwellings and clothes drying, within the building or building property linestownhouses with attached private garages, and instead uses electric heating appliances for service.

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.

ALTERATION OR ALTER. Any construction or renovation to an existing structure other than repair for the purpose of maintenance or addition.

COMBUSTION EQUIPMENT. Any equipment or appliance used for space heating, water heating, cooking, clothes drying and/or lighting that uses fuel gas.

<u>DIRECT CURRENT FAST CHARGING (DCFC)</u>. 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 HEATING APPLIANCE. A device that produces heat energy to create a warm environment by the application of electric power to resistance elements, refrigerant compressors, or dissimilar material junctions, Residential Reconstruction projects (as defined in the California Mechanical Code.

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.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded and equipment grounding conductors and the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

FUEL GAS. A gas that is natural, manufactured, liquefied petroleum, or a mixture of these.

<u>LEVEL 2 EV CAPABLE.</u> 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 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 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.
- <u>ii.</u> 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.

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.

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 1/2" 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.

ELECTRIC VEHICLE CHARGING STATION (EVCS). One or more electric vehicle charging spaces that include the installation of electric vehicle supply equipment (EVSE) with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement.

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.

B. Section 4.106.4 of the Green Building Standards Code is amended to read as follows:

#### **SECTION 4**

## **RESIDENTIAL MANDATORY MEASURES**

4.106.4 Electric vehicle (EV) charging for new construction. New construction and 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. 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 commercial 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 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.
- 2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.
- 3. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost by more than \$400 per dwelling unit for residential buildings that entirely consist of either affordable rental units, defined as units rented at an amount consistent with the maximum rent levels for a housing development that receives an allocation of state or federal low-income housing tax credits from the California Tax Credit Allocation Committee. Residential developments meeting the above definition must have Inclusionary Housing Plan that is approved by the Housing Division pursuant to Section

18.37.090. If costs are found to exceed this level, an applicant shall provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site transformer capacity.

C. Section 4.106.4.1 of the Green Building Standards Code is amended to read as follows:

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

D. Section 4.106.4.2 of the Green Building Standards Code is amended:

4.106.4.2 New multi-family dwellings with new residential parking facilities. The following requirements apply to all new multi-family dwellings. Up to, and no more than, two dwelling unit parking spaces shall share access to one EV Ready Circuit that is within 3 feet of each parking space: 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.

4.106.4.2.1 New Construction. Forty percent (40%) 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. Sixty percent (60%) of dwelling units with parking spaces shall be provided with at minimum a Level 1 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.

- 1. 10% 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.
- 2. In addition, each of the remaining dwelling units with parking space(s) shall be provided with at least a Level 1 EV Ready Space.
- 3. Mechanical parking systems shall have sufficient panel capacity to support 1.4kW to all 50% of the mechanical parking stalls with pre-wiring to the mechanical parking system from the panel.

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. 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 multi-family buildings with parking spaces including: a) assigned or leased to individual dwelling units, and b) unassigned residential parking.
- 4. The City of San Carlos may consider allowing exceptions, on a case by case basis, if a building permit applicant provides documentation detailing that an increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 among charging 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.
- E. Section 4.106.4.2.2 of the Green Building Standards Code is amended to read as follows:
- 4.106.4.2.2 Existing Buildings.
- 1. 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 percent (10%) of the total number of parking spaces added or altered shall be Level 2 EV Ready.
- F. Section 4.106.4.3 of the Green Building Standards Code is amended to read as follows:
- 4.106.4.3 Electric vehicle charging stations (EVCS). Electric vehicle charging stations required by Section 4.106.4.2 shall comply with Section 4.106.4.3.

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.

- 4.106.4.3.1 Location. EVCS shall comply with at least one of the following options:
- 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 4.106.4.3.1 and Section 4.106.4.3.2, Item 3

4.106.4.3.2 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.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. Refer to Exception: Where the City of San Carlos Planning and Building Department Zoning Regulations for parking space dimension requirements 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.

G. Section 4.106.4.4 of the Green Building Standards Code is amended to read as follows:

4.106.4.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 4.106.4.1 and 4.016.4.2 Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

H. Section 4.106.5 of the Green Building Standards Code is added and shall read as follows:

4.106.5 All-electric buildings. New construction buildings and qualifying alteration projects shall comply with Section 4.106.5.1 or 4.106.5.2 so that they do not use combustion equipment or are ready to accommodate installation of electric heating appliances.

4.106.5.1. New construction and qualifying alteration projects. All newly constructed buildings shall be all-electric buildings. Alterations that include replacement or addition of over 50 percent of the existing foundation for purposes other than a repair or reinforcement as defined in California Existing Building Code Section 202; or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be all-electric buildings. If either of these criteria are met within a three-year period, measured from the date of the most recent previously obtained permit final date, the project shall be subject to the all-electric buildings requirements.

Tenant improvements shall not be considered new construction. The final determination whether a project meets the definition of substantial reconstruction/alteration shall be made by the local enforcing agency.

**Exceptions:** 

Exceptions:

October 24, 2022

- All residential buildings except Multi-Unit Residential buildings as defined by the San Carlos
   Municipal Code 18.40.020 may contain non-electric indoor and outdoor Cooking Appliances
   and indoor and outdoor Fireplaces.
- 2. If an applicant establishes by substantial evidence that an All-Electric Building is infeasible for the project due to exceptional or extraordinary circumstances particular to the project, then the Building Official may grant a modification. The design professional shall submit findings demonstrating a unique reason that makes the technical code impractical, that the modification is in conformity with the intent and purpose of the technical code, the modification shall be as narrow as possible so as to effectuate as much of a reduction in natural gas as possible, and that such modification does not lessen health, life safety, and fire safety requirements or any degree of structural integrity. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with Section 4.106.5.2.
  - A building applicant may appeal the decision of the Building Official to the City Council. The City Council's decision on the appeal shall be final.
- 3. If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section 4.106.5.2.

Note: Attached Accessory Dwelling Units and Junior Accessory Dwelling Units as defined by the San Carlos Municipal Code 18.40.020 are not considered new construction and are not subject to the All-Electric building requirements unless the alteration to the existing residence includes replacement of over 50% of the existing foundation for purposes other than a repair or reinforcement as defined in California Existing Building Code Section 202; or when over 50% of the existing framing above the sill plate is removed or replaced for purposes other than repair. If either of these criteria are met within a 3-year period, measured from the date of the most recent previously obtained permit final date, that structure is considered new construction and shall be subject to the All-Electric building requirements.

# 4.106.5.2. Requirements for combustion equipment.

Where combustion equipment is allowed per Exceptions under 4.106.5.1, the construction drawings shall indicate electrical infrastructure and physical space accommodating the future installation of an electrical heating appliance in the following ways, as certified by a registered design professional or licensed electrical contractor:

1. Branch circuit wiring, electrically isolated and designed to serve all electrical heating appliances in accordance with manufacturer requirements and the California Electrical Code, including the appropriate voltage, phase, minimum amperage, and an electrical receptacle or junction box within five feet of the appliance that is accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors; and

- 2. Labeling of both ends of the unused conductors or conduit shall be with "For Future Electrical Appliance"; and
- 3. Reserved circuit breakers in the electrical panel for each branch circuit, appropriately labeled (i.e "Reserved for Future Electric Range"), and positioned on the opposite end of the panel supply conductor connection; and
- 4. Connected subpanels, panelboards, switchboards, busbars, and transformers shall be sized to serve the future electrical heating appliances. The electrical capacity requirements shall be adjusted for demand factors in accordance with the California Electric Code; and
- 5. Physical space for future electrical heating appliances, including equipment footprint, and if needed a pathway reserved for routing of ductwork to heat pump evaporator(s), shall be depicted on the construction drawings. The footprint necessary for future electrical heating appliances may overlap with non-structural partitions and with the location of currently designed combustion equipment.

FI. Section 5.106.15.3 of the Green Building Standards Code is amended to read as follows:

## **SECTION 5**

## NONRESIDENTIAL MANDATORY MEASURES

5.106.1.3 All-electric buildings. New construction buildings and qualifying alteration projects shall comply with Section 5.106.13.1 or 5.106.13.2 so that they do not use combustion equipment or are ready to facilitate future electrification.

5.106.1.3.1. New construction and qualifying alteration projects. All newly constructed buildings shall be all-electric buildings. Alterations that include replacement of over 50 percent of the existing foundation for purposes other than a repair or reinforcement as defined in California Existing Building Code Section 202; or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be all-electric buildings. If either of these criteria are met within a three-year period, measured from the date of the most recent previously obtained permit final date, the project shall be subject to the all-electric buildings requirements.

Tenant improvements shall not be considered new construction. The final determination whether a project meets the definition of substantial reconstruction/alteration shall be made by the local enforcing agency.

## **Exceptions:**

 Laboratory areas with Non-Residential Buildings may contain non-electric Space Conditioning Systems. To take advantage of this exception, an applicant shall provide third party verification that the All-Electric space heating requirement is not cost effective and feasible. If the Building

- Official grants a modification pursuant to this Exception, the applicant shall comply with Section 5.106.1.3.2.
- 2. Non-residential buildings containing a for-profit restaurant open to the public or an employee commercial kitchen containing cooking facilities with the purpose of preparing and serving food for employees and visitors may apply to the Building Official for a modification to install gasfueled cooking appliances. This exception does not apply to typical employee breakrooms or other self-service kitchens. 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. The Building Official may grant this modification if he or she finds the following:
  - 1. There is a business-related reason to cook with a flame; and
  - 2. This need cannot be reasonably achieved with an electric fuel source; and
  - 3. The applicant has employed reasonable methods to mitigate the greenhouse gas impacts of the gas-fueled appliance; and
  - 4. The applicant shall comply with 5.106.1.3.2.
- 3. If an applicant establishes by substantial evidence that an All-Electric Building is infeasible for the project due to exceptional or extraordinary circumstances particular to the project, then the Building Official may grant a modification. The design professional shall submit findings demonstrating a unique reason that makes the technical code impractical, that the modification is in conformity with the intent and purpose of the technical code, the modification shall be as narrow as possible so as to effectuate as much of a reduction in natural gas as possible, and that such modification does not lessen health, life safety, and fire safety requirements or any degree of structural integrity. If the Building Official grants a modification pursuant to this Exception, the applicant shall comply with Section 5.106.1.3.2.

A building applicant may appeal the decision of the Building Official to the City Council. The City Council's decision on the appeal shall be final.

4. If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section 5.106.1.3.2.

The Building Official shall have the authority to approve alternative materials, design and methods of construction or equipment per California Building Code Section 104.

# <u>5.106.1.3.2.</u> Requirements for combustion equipment.

Where combustion equipment is allowed per exceptions under Section 5.106.1.3.1, the construction drawings shall indicate electrical infrastructure and physical space accommodating the future installation of an electrical heating appliance in the following ways, as certified by a registered design professional or licensed electrical contractor:

- 1. Branch circuit wiring, electrically isolated and designed to serve all electrical heating appliances in accordance with manufacturer requirements and the California Electrical Code, including the appropriate voltage, phase, minimum amperage, and an electrical receptacle or junction box within five feet of the appliance that is accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors; and
- 2. Labeling of both ends of the unused conductors or conduit shall be with "For Future Electrical Appliance"; and
- 3. Reserved circuit breakers in the electrical panel for each branch circuit, appropriately labeled (i.e "Reserved for Future Electric Range"), and positioned on the opposite end of the panel supply conductor connection; and
- 4. Connected subpanels, panelboards, switchboards, busbars, and transformers shall be sized to serve the future electrical heating appliances. The electrical capacity requirements shall be adjusted for demand factors in accordance with the California Electric Code; and
- 5. Physical space for future electrical heating appliances, including equipment footprint, and if needed a pathway reserved for routing of ductwork to heat pump evaporator(s), shall be depicted on the construction drawings. The footprint necessary for future electrical heating appliances may overlap with non-structural partitions and with the location of currently designed combustion equipment.
- J. Section 5.106.5.3 of the Green Building Standards Code is amended to read 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*. or Section 5.106.5.3.2 to facilitate future installation and use of EV chargers of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

## **Exceptions:**

- 1. On a case-by-case basis where local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
  - a. Where there is no commercial 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.
- 2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section.

K. Section 5.106.5.3.1 of the Green Building Standards Code is amended to read as follows:

<u>5.106.5.3.1 Nonresidential Occupancy Class B Offices – Shared Parking Space Office buildings: In nonresidential new construction buildings designated primarily for office use with parking:</u>

5.106.5.3.1.1 New Construction. Ten percent (10%) of parking spaces shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Ten percent (10%) of parking spaces provided shall be Level 1 EV Ready spaces. Thirty percent (30%) of parking spaces provided shall be EV Capable.

L. Section 5.106.5.3.2 of the Green Building Standards Code is amended to read as follows: 1. When 10 or more parking spaces are constructed, 10% of the available parking spaces on site shall be equipped with Level 2 EVCS;

5.106.5.3.2 Hotel and Motel Occupancies – Shared Parking Facilities.

5.106.5.3.2.1 New Construction. Five percent (5%) of parking spaces provided shall be EVCS with Level 2 EV Ready. ALMS shall be permitted to reduce load when multiple vehicles are charging. Twenty-five percent (25%) 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.

M. Section 5.106.5.3.3 of the Green Building Standards Code is amended to read as follows:

5.106.5.3.3 All Other Nonresidential Occupancies – Shared Parking Facilities.

5.106.5.3.3.1 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. Ten percent (10%) of parking spaces provided shall be Level 2 EV Capable.

N. Section 5.106.5.3.4 of the Green Building Standards Code is amended to read as follows:

5.106.5.3.4 Direct current fast charging stations. One DCFC may be substituted for up to five (5) EVCS to meet the requirements of 5.106.5.3.1, 5.106.5.3.2, and 5.106.5.3.3. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 1 and Level 2 spaces.

- 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 nonresidential buildings: In nonresidential 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 that 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 for shared parking, EV Ready Spaces 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".

Code) with attached private garages. (Ord. 1570 § 3, 2021; Ord. 1553 § 2 (Exh. A (part)), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1448 § 3, 2012: Ord. 1428 § 2 (part), 2010; Ord. 1422 § 3, 2010)15.04.130

## 15.04.130 Title 24, Part 12, California Referenced Standards Code.

Title 24, Part 12, the California Referenced Standards Code, 20222019 Edition, is hereby adopted by reference. (Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

# 15.04.140 1997 Uniform Building Security Code.

The 1997 Uniform Building Security Code is hereby adopted by reference. (Ord. <u>1553 § 2 (Exh. A (part))</u>, <u>2019: Ord.</u> 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

## 15.04.150 20212018 International Property Maintenance Code.

The <u>2021</u><del>2018</del> International Property Maintenance Code is hereby adopted by reference, with the following amendments and modifications:

- A. Section 101.1. Insert [City of San Carlos].
- B. Section 103.5. Insert [First violation, \$100 per violation; Second violation of the same ordinance within 36-months, \$200 per violation; Each additional violation of the same ordinance within 36-months, \$500 per violation].
- C. Section 111. Means of appeal, is deleted in its entirety. Reference applicable San Carlos Municipal Code-Section for means of appeal.