

- a. Consider Amending and Modifying Chapter 15.04 of the City of San Carlos Municipal Code (Technical Building Codes) to Adopt the 2022 California Building Code Series and Adopting the 2021 Edition of the International Fire Code with the 2022 California Fire Code Amendments



## **CITY COUNCIL STAFF REPORT**

**MEETING DATE:** October 10, 2022

**ITEM TITLE:** Consideration of Introducing an Ordinance Amending and Modifying San Carlos Municipal Code Chapter 15.04 - Technical Building Codes - to Adopt the 2022 California Building Code Series; and Introducing an Ordinance Adopting the 2021 Edition of the International Fire Code with the 2022 California Fire Code Amendments.

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### **RECOMMENDATIONS:**

Staff recommends that the City Council introduce the following two Ordinances to:

1. Amend and modify Chapter 15.04 of the City of San Carlos Municipal Code ("Technical Building Codes") to adopt the 2022 California Building Code series; and
2. Adopt the 2021 edition of the International Fire Code with the 2022 California Fire Code amendments.

### **FISCAL IMPLICATIONS:**

There is no fiscal impact and no additional appropriation is needed.

Building Division and Fire Department fees will not be changed by adoption of the 2022 California Building and Fire Code series. Any costs associated with training will be covered by the adopted Building Division budget.

### **BACKGROUND:**

The 2022 California Building Code series has been released by the State of California and will go into effect on January 1, 2023. The 2022 California Building Code series is an update to the 2019 California Building Code series. The updates are developed through a comprehensive multi-state agency and stakeholder effort including: the Department of Housing and Community Development; Division of State Architect; Office of Statewide Health Planning and Development; Office of the State Fire Marshal; Department of Public Health; California Energy Commission; industry stakeholders; and, interested members of the public. At the local level, the International Code Council (ICC) Peninsula Chapter, local Building Officials, and City staff provided input during the Code writing process.

Local jurisdictions may amend the new California Building Codes before they take effect only if the amendments are more restrictive and based on the need to address climatic, geological, topographical, or environmental conditions of the area.

The proposed amendments are intended to be reasonable, not overly burdensome, and consistent with those proposed by neighboring cities within San Mateo County. The goal of local

building officials is to maintain Code consistency among jurisdictions by having as few local amendments as possible. The Technical Building Code Ordinance and track changes are provided as Attachment 1.

## ANALYSIS:

### 1. The California Energy Code and Mandatory Solar

Consistent with the State's goals to reduce carbon emissions and energy consumption, the California Energy Code and Energy Efficiency Standards continue to become more stringent. The 2022 California Building Code now expands the mandatory rooftop solar requirement to all building types. Other energy efficiency enhancements relate to photovoltaic (PV) and battery storage systems, building envelope requirements, indoor and outdoor lighting control systems, mechanical and water heating, and electrical power distribution systems.

### 2. The 2021 International Fire Code and the 2022 California Fire Code

The City of San Carlos is required to formally adopt a Fire Code and to comply with California Health and Safety Code Sections 13143.5, 13145, and 13146. The proposed Ordinance (Attachment 3) includes amendments to the Fire Code, many of which were contained in the previous Ordinance of the San Carlos Fire Department. The proposed Ordinance reflects practical enforcement of the California Fire Code and will not pose an unreasonable financial hardship to stakeholders within the jurisdictional boundaries of the City. The Fire Code Ordinance will enhance the San Carlos Fire Department's fire loss prevention and reduction program. The program is formulated for all risk protection by reducing the possible loss of life, property, and serious injury caused by the effects of fires and emergency incidents through public outreach, pre-fire planning, and enforcement by the San Carlos Fire Department personnel.

### 3. 2022 Code Cycle and City Climate Goals

Regular and more restrictive State Building Codes act to support the City's goal to reduce emissions 40% by 2030 and 80% by 2050, relative to 1990 levels. The City's Climate Mitigation and Adaptation Plan includes strategies to make necessary amendments to the State Code to ensure the City electrifies buildings at a pace to achieve these targets. The City Council adopted an all-electric new construction Reach Code in February 2021 that must be readopted and included in the 2022 Building Code. Included within the attached amendments is the City's new construction Reach Code, with the following modifications that are necessary to ensure consistency with the 2022 Building Code:

- All-electric Reach Code construction requirements have been moved from the California Energy Code, Part 6, to the California Green Building Standards Code, Part 11, per recommendations by the California Energy Commission.
- Solar requirements have been omitted to remove redundancies as the 2022 California Building Code now expands solar to all buildings.
- Electric vehicle charging requirements in multi-family buildings and non-residential buildings have been increased based on enhancements to the 2022 California Building Code.

Staff will return to the City Council in early 2023 for a study session to review the City's Reach

Code in more detail, including the existing exceptions currently in place, and explore possible policy considerations toward electrifying existing buildings.

ALTERNATIVES:

The alternatives available to the City Council include:

1. Introduce an Ordinance amending San Carlos Municipal Code Chapter 15.04 – Technical Building Codes – to adopt the 2022 California Building Code Series; and introduce an Ordinance amending San Carlos Municipal Code Section 15.04.110 – California Fire Code – to adopt the 2021 edition of the International Fire Code with the 2022 California Fire Code amendments; or
2. Do not introduce proposed Ordinances; or
3. Provide staff with alternative direction.

Respectfully submitted by:

Chris Valley, Building Official

Al Savay, Community Development Director

Approved for submission by:



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Jeff Maltbie, City Manager

ATTACHMENT(S):

1. Ordinance – Technical Building Codes with Chapter 15 Technical Building Codes (Redlined)
2. Ordinance – Fire Code

ORDINANCE NO. \_\_\_\_

**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.**

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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 10<sup>th</sup> day of October, 2022 and passed and adopted at a regular meeting of the City Council of the City of San Carlos at a regular meeting thereof held on the \_\_\_\_ day of \_\_\_\_\_, 2022, by the following vote:

**AYES, COUNCIL MEMBERS:** \_\_\_\_\_

**NOES, COUNCIL MEMBERS:** \_\_\_\_\_

**ABSENT, COUNCIL MEMBERS:** \_\_\_\_\_

\_\_\_\_\_  
**CITY CLERK** of the City of San Carlos

APPROVED:

\_\_\_\_\_  
**MAYOR** 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 2021~~2018~~ International Property Maintenance Code.
- 15.04.160 Safety Assessment Program (SAP) placards.
- 15.04.170 Findings.

\* Prior ordinance history: Ords. 1021, 1078, 1099, 1104 and 1267.

#### **15.04.010 Adoption of codes by reference—Copies on file.**

The City Council finds that the requirements of Government Code Sections 50022.4, 50022.5 and 50022.6 relating to adopting codes by reference have been met. The City Council directs that one copy of each code adopted by reference shall be placed on file with the Building Official and maintained there for public inspection while the said codes are in effect. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.020 City Council findings.**

The City Council finds that modifications are required for the respective codes being adopted herein. Specifically, local climatic, geologic, topographic, and social conditions necessitate the modifications as listed in Section 15.04.170. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1448 § 2, 2012: Ord. 1428 § 2 (part), 2010)

#### **15.04.030 Title 24, Part 1, California Administrative Code.**

Title 24, Part 1, the California Administrative Code, ~~2022~~2019 Edition, is hereby adopted by reference. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.040 Title 24, Part 2, California Building Code, Volumes 1 and 2, with appendices, amendments, and modifications**

Title 24, Part 2, California Building Code, ~~2022~~2019 Edition, Volumes 1 and 2, is hereby adopted by reference, with the following selected appendices, amendments and modifications:

A. Section 113, Board of Appeals, is deleted in its entirety and replaced with Title 24, Part 3, the California Electrical Code, ~~2022~~2019 Edition, Section 89.108.8, Appeals Board.

B. Division II, Scope and Administration, is adopted and amended as follows:

Section 105.2 (2) Fences not over 6 feet high. Add: plus 12" of lattice. See the San Carlos Municipal Code, Section 18.15.040.



Section 105.2 (4) Retaining walls that are not over 4 feet high measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II, or IIIA liquids. Add: Wood retaining walls are limited to 3 feet tall without permits. Retained soil at top of wall limited to 2:1 slope.

Section 105.2 (6) is deleted.

C. Section 901.2, add:

as amended by the City of San Carlos Fire Department.

~~D.—Section 1704.4 and Table 1705.3 are amended to read as follows:~~

~~Bolts or threaded rod, such as used for hold-down anchors, installed in existing concrete shall be load tested if used in tension.~~

~~1.—The special inspection required to observe the placement of these types of rods or bolts is not required.~~

~~2.—All (100%) of rods or bolts installed in existing concrete for tension anchorage, such as hold-downs, shall be tested.~~

~~3.—All such anchors shall be tension tested to twice the allowable tension value for bolts of the same diameter, per Table 1908.2, or higher value as specified by the design structural engineer.~~

~~4.—Use  $f'_c$  of 2,500 psi unless higher  $f'_c$  can be determined by report or test.~~

~~5.—Tension testing (pull tests) of bolts or rods shall be performed by a third party testing lab approved by the Building Official.~~

~~6.—Failed bolts or rods shall be replaced and tested per (3).~~

~~7.—A final letter from the testing agency shall indicate all bolts passed the testing criteria.~~

DE. Section 1705.3, Exception 1, add:

where the structural design of the footing is based on a specified compression strength,  $f'_c$ , no greater than 2,500 pound per square inch (psi)(17.2 Mpa).

~~F.—Section 1905.1.8 ACI 318, Section 22.10, is modified to read as follows:~~

~~Section 1905.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:~~

~~22.10—Plain concrete in structures assigned to Seismic Design Category C, D, E or F.~~

~~22.10.1—Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:~~

~~(a)—Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.~~

~~Exception: In detached one and two family dwelling three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.~~

~~(b)—Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.~~

~~Exception: In detached one and two family dwellings three stories or less in height and constructed with stud bearing walls, plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.~~

~~G.—Section 1907, Minimum Slab Provisions, add:~~

~~The slab shall be reinforced by a minimum of 6" x 6", 10 gauge welded wire fabric or approved equal for all structures that require a building permit.~~

EH. Section 2308.3.1~~2308.6~~, Foundation plates or sills, is modified to read as follows:

Section 2308.3.1 Foundation plates or sills. Foundation plates or sills resting on concrete or masonry foundations shall comply with Section 2304.3.1. Foundation plates or sills shall be bolted or anchored to the foundation with not less than 5/8-inch diameter (15.875 mm) steel bolts or approved anchors spaced to provide the equivalent anchorage as the steel bolts. Bolts shall be embedded not less than 7 inches (178 mm) into concrete or masonry. The bolts shall be located in the middle third of the width of the plate. Bolts shall be spaced not more than 6 feet (1829 mm) on center and there shall be not less than two bolts or anchor straps per piece with one bolt or anchor strap located not more than 12 inches (305 mm) or less than 4 inches (102 mm) from each end of the piece. Bolts in sill plates of braced wall lines in structures over two stories above grade shall be spaced not more than 4 feet (1219 mm) on center. A properly sized nut and washer shall be tightened on each bolt to the plate.

~~Section 2308.6 Foundation plates or sills. Foundations and footings shall be as specified in Chapter 18. Foundation plates or sills resting on concrete or masonry foundations shall comply with Section 2304.3.1. Foundation plates or sills shall be bolted or anchored to the foundation with not less than 5/8" diameter (15.9 mm) steel bolts or approved anchors spaced to provide equivalent anchorage as the steel bolts. Bolts shall be embedded at least 7 inches (178 mm) into concrete or masonry, and spaced not more than 6 feet (1,829 mm) apart. There shall be a minimum of two bolts or anchor straps per piece with one bolt or anchor strap located not more than 12 inches (305 mm) or less than 4 inches (102 mm) from each end of the piece. A properly sized nut and washer shall be tightened on each bolt to the~~

~~plate. Such washers shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm x 76 mm x 79 mm) in size.~~

~~F.~~ CBC Appendix Chapter I is selected and adopted. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.045 Title 24, Part 2.5, California Residential Code with appendices, amendments, and modifications.**

Title 24, Part 2.5, California Residential Code, ~~2022~~2019 Edition, is hereby adopted by reference, with the following selected appendices, amendments, and modifications:

A. Section R105.2, Work exempt from permit. Items 2, 5, and 10 are deleted.

B. Section R112, Board of Appeals, is deleted in its entirety and replaced with Title 24, Part 3, the California Electrical Code, ~~2022~~2019 Edition, Section 89.108.8, Appeals Board.

C. Chapter 2, Definitions, add:

RESIDENTIAL RECONSTRUCTION. A residential-type project where the building at any time is uninhabitable, including removal of any or all utilities (water, electrical, natural gas, or sewer); or the project provides no permanent kitchen or bathroom facilities; or the project provides no shelter or ability to maintain heat as defined by code; or when over 50% of the foundation is replaced or reinforced other than the repair of a foundation failure; or when over 50% of the framing above the foundation is removed or replaced. Final determination whether a project meets the definition of residential reconstruction shall be made by the Building Official.

D. Section R313.2, One- and two-family dwellings automatic fire systems, add:

An automatic residential fire sprinkler system, in accordance with R313 or NFPA 13D, shall be installed in Residential Reconstruction projects of 2,500 square feet or greater, or the structure increases height from ~~one-story~~~~one-story~~ to a ~~two-story single family~~~~two-story single-family~~ dwelling and is greater than 2,500 square feet.

E. Section R311.7.5.1, Risers, add:

The minimum stair riser height shall be no less than 4 inches (102 mm).

~~F. Section R403.1.3, Seismic reinforcing, is modified to read as follows:~~

~~Section R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories D0, D1 and D2, as established in Section R301.2.2.1, shall have minimum reinforcement of at least two continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.~~

In Seismic Design Categories D0, D1 and D2 where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D0, D1 and D2 where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D0, D1 and D2 masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family dwellings which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

FG. Section R403.1.6, Foundation anchorage, is modified to read as follows:

R403.1.6 Foundation anchorage. Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with minimum 5/8-inch diameter (15.875 mm) anchor bolts spaced not greater than 6 feet (1829 mm) on center or approved anchors or anchor straps spaced as required to provide equivalent anchorage to 5/8-inch diameter (15.875 mm) anchor bolts. Bolts shall extend not less than 7 inches (178 mm) into the concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318. Anchor bolts shall be permitted to be located while concrete is still plastic and before it has set. Where anchor bolts resist placement or consolidation of concrete around anchor bolts is impeded, the concrete shall be vibrated to ensure full contact between the anchor bolts and concrete.

Exceptions:

1. Walls 24 inches (610 mm) total length or shorter connecting offset braced wall panels shall be anchored to the foundation with not fewer than one anchor bolt located in the center third of the plate section and shall be attached to adjacent braced wall panels at corners as shown in Item 9 of Table R602.3(1).

1.—Connection of walls 12 inches (305 mm) total length or shorter connecting offset braced wall panels to the foundation without anchor bolts shall be permitted. The wall shall be attached to adjacent braced wall panels at corners as shown in Item 9 of Table R602.3(1).

2.—Section R403.1.6 Foundation anchorage. Sill plates and walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet (1,829 mm) on center. Bolts shall be at least 5/8" (15.9 mm) in diameter and shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. A nut and washer shall be tightened on each anchor bolt. Such washers shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm x 76 mm x 79 mm) in size. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not a part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318. Cold-formed steel framing systems shall be fastened to wood sill plates or anchored directly to the foundation as required in Section R505.3.1 or R603.3.1.

Exceptions:

1)—Foundation anchorage spaced as required to provide equivalent anchorage to 5/8-inch diameter (15.9 mm) anchor bolts.

2)—Walls 24 inches (610 mm) total length or shorter connecting offset braced wall panels shall be anchored to the foundation with a minimum of two anchor bolts located no less than 7 bolt diameters from each end of the plate section and shall be attached to adjacent braced wall panels at corners as allowed in Section R602.10.

3)—Connection of walls 12 inches (305 mm) total length or shorter connecting offset braced wall panels to the foundation without anchor bolts shall be permitted. The wall shall be attached to adjacent braced wall panels at corners as allowed in Section R602.10.

H.—Table R602.10.3 (3). Add a new footnote "e" to the end of CRC Table R602.10.3 (3), to read:

e. In Seismic Design Categories D0, D1 and D2, Method GB is not permitted and the use of Method PCP is limited to one-story single family dwellings and accessory structures.

I.—Section R602.10.4. Add a new Subsection R602.10.4.4, to read:

R602.10.4.4 Limits on methods GB and PCP. In Seismic Design Categories D0, D1 and D2, Method GB is not permitted for use as intermittent braced wall panels, but gypsum board is permitted to be installed when required by this Section to be placed on the opposite side of studs from other types of braced wall sheathing. In Seismic Design Categories D0, D1 and D2, the use of Method PCP is limited to one-story single family dwellings and accessory structures.

~~GJ.~~ CRC Appendix Chapters AH, AJ, AK, AO, AQ, AT, ~~and AV~~, and AX are selected and adopted. (Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

**15.04.050 Title 24, Part 3, California Electrical Code, with amendments and modifications.**

Title 24, Part 3, California Electrical Code, 2022~~2019~~ Edition, is hereby adopted by reference, with the following amendments and modifications:

A. Section 89.108.4.1, Permits (a), add:

A California State Licensed Electrical Contractor is required to obtain the permit for all electrical work performed in all occupancies except single family dwellings, attached or detached garages, carports or accessory buildings.

B. Chapter 1, Article 100, Definitions: Approved, add:

Existence of a factory applied label or application of a field applied label by an agency approved by the AHJ to test and label is an alternate method of approval. See the list of recognized third party testing and labeling agencies.

C. Chapter 1, Article 100, Definitions: Authority Having Jurisdiction (AHJ), add:

The Authority Having Jurisdiction is the Building Official of the City of San Carlos.

~~D.—Section 210.11 (C) Branch Circuits Required, add items:~~

~~(5) Additional Branch Circuit Raceway Required for Future All-Electric. New one- and two-family dwellings, townhouses, and Residential Reconstruction projects (as defined in the California Residential Code), for each dwelling unit, shall install listed raceways to accommodate a dedicated branch circuit for the following electric appliance locations:~~

~~Clothes Dryer~~

~~HVAC~~

~~Kitchen Cooking~~

~~The raceway shall be not less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or sub-panel and shall terminate in a listed cabinet, box, or other enclosure in close proximity to the electrical appliance location(s). Raceways are required to be continuous at enclosed, inaccessible, or concealed areas and spaces. The service panel and/or sub-panel shall provide capacity to accommodate these branch circuits and permit the installation of branch circuit overcurrent protective devices for each appliance.~~

~~(6) Additional Branch Circuit for Water Heating Systems. Systems using gas or propane water heaters in new one- and two-family dwellings, townhouses, and Residential Reconstruction projects (as defined in the California Residential Code) shall include the following branch-circuit components:~~

~~A dedicated 125-volt, 20-amp receptacle connected to the main service or sub-panel with a 120/240-volt 3-conductor, 10-AWG branch circuit, within 3-feet of the water heater and accessible to the water heater with no obstructions. Both ends of the unused conductor shall be labeled "Spare" and be electrically isolated, and a reserved single-pole circuit breaker space in the electrical panel shall be provided and labeled "Future 240V Use." (Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)~~

#### **15.04.060 Title 24, Part 4, California Mechanical Code with appendices.**

Title 24, Part 4, California Mechanical Code, ~~2022~~2019 Edition, is hereby adopted by reference, with the following selected appendices:

A. CMC Appendix Chapters B, C, D, F, and G are selected and adopted. (Ord. ~~1553 § 2 (Exh. A (part))~~, ~~2019: Ord.~~ 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.070 Title 24, Part 5, California Plumbing Code with appendices.**

Title 24, Part 5, California Plumbing Code, ~~2022~~2019 Edition, is hereby adopted by reference, with the following selected appendices:

A. CPC Appendix Chapters A, B, C, D, ~~E~~, F, G, I, J, and K are selected and adopted. (Ord. ~~1553 § 2~~ ~~1513 § 1~~ (Exh. A (part)), ~~2019~~2016: Ord. ~~1513 § 1 (Exh. A (part))~~, ~~2016: Ord.~~ 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.080 Title 24, Part 6, California Energy Code with appendices.**

Title 24, Part 6, the California Energy Code, ~~2022~~~~19~~20222019 Edition, is hereby adopted by reference, with all appendices.~~A.—Section 100.0(e)(2)A of the Energy Code is amended to read as follows:~~

~~(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 include a construction project where an alteration 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. The final determination whether a project meets the definition of substantial reconstruction/alteration shall be made by the designated Building Official.

Exception 1: Laboratory areas within 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.

Exception 2: If an applicant establishes that there is not an All-Electric prescriptive compliance pathway for the building or space regulated by the Energy Code, and that the building or space is not able to achieve compliance with the Energy Code using the alternative calculation method and using commercially available technology, then the Building Official may grant a modification. If the Building Official grants a modification pursuant to this Exception, an applicant shall comply with the pre-wiring provision of Note 1 below.

Exception 3: 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 gas-fueled 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 the pre-wiring provision of Note 1 below.

Exception 4: 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.



Exception 5: All Electric Building requirements shall not apply to projects with planning entitlements approved by the City prior to the effective date of this Ordinance.

Exception 6: 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 the pre-wiring provision of Note 1 below.

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.

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. The pre-wiring shall include the following:

- 1.—A dedicated electrical circuit for each appliance, with a minimum amperage requirement for a comparable electric appliance (see manufacturer's recommendations) with an electrical receptacle that is connected to an electrical overcurrent protection device, extending to within 3 feet of the appliance and accessible without obstructions;
- 2.—Panel and electrical receptacle to be labeled "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 alternate materials, design, and methods of construction or equipment per California Building Code ("CBC") 104 or California Residential Code ("CRC") R104, as applicable.

Note 3: 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 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.

B.—Section 100.1(b) of the Energy Code is amended to add definitions for “All-Electric Building” and “Laboratory” to read 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, or fossil fuels for backup power generation.

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

C.—Section 110.2 “Certification by manufacturers” of the Energy Code is amended to read 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 applicable requirements of this section.

D.—Section 110.3(a) of the Energy Code is amended to read 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.

E.—Section 110.4(a) of the Energy Code is amended to read as follows:

#### **SECTION 110.4(a) — 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.

F.—Section 110.5 of the Energy Code is amended to read as follows:

#### SECTION 110.5—COOKING EQUIPMENT, POOL AND SPA HEATERS, AND FIREPLACES

Any system or equipment listed below may be installed only if it meets the requirements of Section 100.0 (e)2A:

(a) Cooking equipment

(b) Pool heaters

(c) Spa heaters

(d) Indoor and outdoor fireplaces

G.—Section 110.10 of the Energy Code is amended to read as follows:

#### SECTION 110.10—MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS AND SOLAR PANEL SYSTEM REQUIREMENTS FOR NON-RESIDENTIAL NEW BUILDINGS

(a) Covered Occupancies:

1.—Single Family Residences. Single family residences located in new subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete or 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 Multi-family Buildings. Low-rise multi-family buildings 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 Multi-family Buildings. Hotel/motel occupancies and high-rise multi-family buildings with ten habitable stories or fewer shall comply with the requirements of Section 110.10(b) through 110.10(d). The minimum solar photovoltaic system required is 2 watts per square foot of the building footprint or right-sized PV system shall be installed.

4.—Nonresidential Buildings. Nonresidential buildings with three habitable stories or fewer, other than healthcare facilities, shall comply with the requirements of Section 110.10(b) through 110.10(d). The minimum solar photovoltaic system required is 2 watts per square foot of the building footprint or right-sized PV system shall be installed.

(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 5 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 2,000 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 Multi-family 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 permitted 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 Multi-family 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 multi-family 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 multi-family buildings with thermostats in each dwelling unit that are demand response controls in compliance 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.—Comply with 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: Vegetative roofs covering 35 percent of the roof area or greater, meeting all relevant code requirements including considerations for wind, fire, and structural loads.~~

~~Exception 7 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 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 bus bar 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”.~~

~~A. (~~Ord. 1570 § 2, 2021; Ord. 1553 § 2 (Exh. A (part)), 2019; Ord. 1513 § 1 (Exh. A (part)), 2016; Ord. 1470 § 1 (Exh. A (part)), 2013; Ord. 1428 § 2 (part), 2010~~)~~

#### **15.04.090 Title 24, Part 7.**

~~Vacant. (Ord. 1553 § 2 (Exh. A (part)), 2019; Ord. 1513 § 1 (Exh. A (part)), 2016; Ord. 1470 § 1 (Exh. A (part)), 2013; Ord. 1428 § 2 (part), 2010)~~

#### **15.04.100 Title 24, Part 8, California Historical Building Code.**

Title 24, Part 8, the California Historical Building Code, ~~2022~~2019 Edition, is hereby adopted by reference. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.110 Title 24, Part 9, California Fire Code.**

Title 24, Part 9, the California Fire Code, ~~2022~~2019 Edition, is hereby adopted by reference, with amendments and modifications (San Carlos Fire Ordinance).

A. Adoption of the ~~2021~~2018 International Fire Code and the ~~2022~~2019 California Fire Code. These codes are hereby adopted in their entirety by the City of San Carlos, for the purposes of prescribing regulations governing the conditions hazardous to life and property and for protection from fire, hazardous materials, or explosion, contained within the ~~2021~~2018 International Fire Code and the ~~2022~~2019 California Fire Code, Title 24, Part 9, with the exception of the following appendix chapters: A-Board of Appeals, E-Hazard Categories, F-Hazard Ranking, G-Cryogenic Fluids, J-Building Information Sign, L-Fire Fighter Air Replenishment Systems, M-High-Rise Buildings-Retroactive Automatic Fire Sprinkler Requirements, and the International Fire Code Standards, as compiled, recommended and published by the International Code Council.

One copy of said code and standards, including local amendments herein adopted and made part thereof, entitled "Amendments to the ~~2021~~2018 International Fire Code with ~~2022~~2019 California Fire Code Amendments" has been and is now filed with the San Carlos Building Division. The same is hereby adopted and incorporated as fully as if set out at length herein, and from the date on which the ordinance codified in this section shall take effect, the provisions thereof shall be controlling within the limits of the City of San Carlos Fire Department.

Note: When sections noted in this section stipulate the IFC, this shall mean the ~~2021~~2018 Edition of the International Fire Code for non-State Fire Marshal regulated occupancies. When sections noted in this section stipulate the CFC, this shall mean the ~~2022~~2019 Edition of the California Fire Code, for California State Fire Marshal regulated occupancies for both building and non-building regulations.

B. Establishment and Duties of the Bureau of Fire Prevention. The International Fire Code and the California Fire Code, including International Fire Code Standards as adopted and amended herein, shall be enforced by the City of San Carlos Fire Department and managed by the City of Redwood City Fire Department (Bureau of Fire Prevention), and shall operate under the direction of the Fire Chief and the Fire Marshal of the Redwood City Fire Department. Both fire officers shall be known as the Fire Code Officials.

C. Definitions.



1. Whenever the word “jurisdiction” is used in the International/California Fire Code, and Fire Code Standards, it is the City of San Carlos.

2. The party responsible for the enforcement of the International/California Fire Code and Fire Code Standards under the direction of the Fire Chief of the Redwood City Fire Department shall be the Fire Marshal.

3. Add the following definition:

“Fire Marshal” is the Fire Code Official of the Bureau of Fire Prevention.

Section 202 High Rise Structure Definition is hereby amended to read as follows:

High Rise Structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest level of fire department vehicle access (see Section 403), except buildings used as hospitals as defined in Health and Safety Code Section 1250.

D. Appeals. Whenever the Fire Code Official disapproves an application or refuses to grant a permit applied for or when it is claimed that the provisions of the code do not apply or that the true intent and meaning of the code have been misconstrued or wrongly interpreted, the applicant may appeal the decision of the Fire Code Official to the City Council of the City of San Carlos. For State Fire Marshal regulated occupancies, see Section 111.2.5 of the California Fire Code, Part 9, Title 24 CCR.

E. Penalties – Section 109, ~~2021~~2018 IFC. Any person who shall violate any of the provisions of the code or standards hereby adopted, or fails to comply therewith, or who shall violate or fail to comply with any order made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder, or any certificate or permit issued thereunder, and from which no appeal has been taken, or who shall fail to comply with such an order affirmed or modified by the Fire Code Official shall be guilty of a misdemeanor. Upon conviction, the court shall impose a fine not less than five hundred dollars or more than one thousand dollars or imprisonment for not less than one hundred eighty days or both.

Notwithstanding any other provision of the code adopted in this section, whenever violation of any section contained in the code adopted in this section is punishable as a misdemeanor, the prosecuting attorney having jurisdiction to prosecute said misdemeanor may specify that the offense is an infraction and proceed with prosecution as an infraction, unless the defendant, at the time of his arraignment or plea, objects to the offense being made an infraction, in which event the complaint shall be amended to charge a misdemeanor and the case shall proceed on a misdemeanor complaint.

The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects; and when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

1. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.

2. Due to the potential danger of the hazardous materials regulated under the International/California Fire Code, any person, firm, or corporation who violates any of the provisions of the International/California Fire Code shall be liable for civil penalties not exceeding five hundred dollars per day for the first ten days; and one thousand dollars per day for the next twenty days; and five thousand dollars for each day after twenty. This shall apply to each violation.

3. In addition to the penalties set out in this section, any condition caused or permitted to exist in violation of any of the provisions of the code adopted in this section shall be deemed a public nuisance and may be summarily abated as such, and each day such condition continues shall be regarded as a new separate offense. The City of San Carlos shall also be permitted the right of recovering those funds used to mitigate continuous, unabated hazards which present a clear and present danger. The cost recovery fee shall be based on the actual hourly rate for Fire Department personnel used in gaining compliance for those in violation.

#### F. Text Language and Local Amendments.

##### 1. Chapter 1: Administration.

a. Section 108.1 Amended. Section 108.1 of the ~~2021~~2018 IFC is amended as follows:

Appeals. In order to determine the suitability of alternate materials and types of construction, to provide for reasonable interpretations of this code, and relief by way of appeal from the granting or denial of any permit, this shall be and hereby is created a Board of Appeals consisting of members of the City Council, to pass upon pertinent matters, who shall grant such relief or make such interpretation or explanation as may be necessary and proper pursuant to the provisions of this Code. The Fire Chief shall be an ex officio member and shall act as Secretary of the Board. The Board of Appeals shall be the San Carlos City Council. The Board shall adopt reasonable rules and regulations for conducting its investigations and shall render all decisions and findings in writing to the Fire Chief, with duplicate copy to the appellant, and may recommend to the executive body such new legislation consistent therewith.

Whenever the Fire Code Official/Fire Marshal disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the Code do not apply or that the true intent and meaning of the Code have been misconstrued or wrongly interpreted, the applicant may appeal the decision of the Fire Code Official to the San Carlos City Council. Such appeal shall be made within thirty (30) days from the date of the decision being appealed and shall be in writing and filed with the City Clerk of the City of San Carlos. Said notice of appeal shall be accompanied by a payment of \$100.00, payable to the City of San Carlos.

The notice of appeal shall:

1. Specify the substance and particulars of the decision being appealed;

2. Show the date of the decision;
3. Be signed by the appellant or his/her duly authorized agent; and
4. Indicate the mailing address of the appellant.

Whenever a notice of appeal is filed with the City Clerk, the Clerk shall set the matter for the hearing at the earliest reasonable time and shall notify the appellant of the place, date and time for the hearing and consider the appeal.

The City Clerk shall give notice of the hearing to the appellant at least seven days prior to the time set for the hearing. Notice shall be given to the appellant by mailing said notice to the address shown on the notice of appeal.

b. Section 105.1.2 Added. Section 105.1.2 is added to the code adopted in this section and shall read as follows. Section 105.1 of the CFC is adopted as written in the ~~2022~~2019 Edition of the CFC.

#### 105.1.2 Fees and Special Requirements.

The fees for permits and other services shall be as established by resolution of the San Carlos City Council. The fees shall be set as a cost recovery for services provided by the Fire Department staff and Redwood City Fire Department Management staff to review and inspect the intended activities, operations, or functions as stipulated by section 105.1.1 and section 105.1.2 "Types of Permits." Subsection 2, Construction Permit is adopted as written by model code. Operational Permits as indicated in section 105, subsection 105.1.2.1 is "not" adopted as written by model code for this ordinance. Section 105.1.1 is amended and enforceable as follows:

#### 105.1.1. Construction Permits Required and Fire Clearance Inspections.

105.1.1. Permits required by this Code for construction related provisions for fire and life-safety that is under the responsibility of the fire department, shall be obtained upon approval of said construction plans and documents. This includes but is not limited to: architectural fire plan review, site plan review, automatic fire alarm systems, automatic fire sprinkler systems, automatic fire suppression systems, wildland urban intermix mitigation plans, and any other review of plans and specifications that require the approval of the Fire Code Official.

105.1.2. Fire clearance inspections are that maintenance type of fire code inspections performed to all occupancies that are under the jurisdictional enforcement powers of the City of San Carlos Fire Department.

Operational use permits "are not" issued on a regular or annual basis as per section 105.6 of the 2012 International Fire Code. Fire clearance inspections are designed to unify fire code operational use permits under one fire clearance inspection procedure, thereby; having one inspection inclusive of any potentially issued operational use permits. On a case-by-case basis, operational use permits may be issued when deemed necessary by the Fire Code Official.

All fire construction plan check and construction permit fees and fire clearance inspection fees must be paid to the City of San Carlos Permit Center prior to engaging in the listed activities, operations or functions. A penalty for all permit payments delinquent after 30 days shall be a doubling of the original fee.

2. Chapter 3: General Fire Safety Precautions – Section 307 Amended. Section 307 of the ~~2021~~2018 IFC/~~2022~~2019 CFC is deleted in its entirety and is replaced by the following section:

Section 307.1 General: Open burning is strictly prohibited within the jurisdictional boundaries of the City of San Carlos. Open burning does not include approved exterior fireplaces or barbecues that are used in a safe manner, and used for cooking or warming purposes only. The Fire Chief prohibits burning of trash or vegetation, except for fire hazard reduction purposes when deemed necessary to abate an immediate fire hazard or during wildland fire suppression activities.

Section ~~406~~324~~406.10~~ is hereby added to the Fire Code to read as follows:

~~406.10~~324 Car Stackers and Car Puzzler Systems. Car stackers and car puzzler systems are defined as manual, or automatic, rack vehicle storage systems designed to park cars vertically and / or horizontally inside structures or under canopies such that the vehicles are in close proximity to one another with limited access for firefighters. The configuration of the vehicles stored in these systems presents an exposure hazard from one vehicle to another in the event of a vehicle fire.

Parking areas inside buildings or under attached canopies equipped with car stackers or car puzzler systems shall be protected from above by an automatic fire sprinkler system designed to a density of Extra Hazard Group 2. Standard coverage sidewall sprinklers, listed for Ordinary Hazard Group 2 shall be provided to protect each parking level, including the bottom levels. The maximum coverage of a sidewall sprinkler is 80 sq. ft. and the use of extended coverage sidewall heads for protection is prohibited.

The basic design area of application for the increased density fire sprinkler system protecting the car stacker or car puzzler systems shall be 2,500 square feet. The design area of application may be reduced upon approval by the fire code official but never less than 1,500 square feet if one-hour rated walls are provided between the stacker parking area and other standard parking stalls or storage areas, and the car stacker system is divided into a maximum of 1,000 square foot fire areas by one-hour rated fire barriers. Flow from all fire sprinkler heads, upright, pendant, and sidewall, at all levels, located in the design area of application, shall be included in the hydraulic calculations for the fire sprinkler system.

Car stackers and car puzzler systems installed inside structures or under attached canopies shall be provided with Manual Wet or Automatic Wet Standpipe connections at all points of access and at each parking level within the structure so that every part of the parking area is within 150 feet by hose pull of a standpipe connection.

Car stackers and car puzzler systems installed inside structures shall be provided with a mechanical smoke and heat removal system as per Section 910.4 of the California Fire Code. The smoke and heat

removal system shall be automatically activated upon detection of fire by the fire alarm system. Section 910.4.4 is not applicable to this requirement.

Car stacker and car puzzler systems installed outside structures that are open to the environment shall be configured so as to limit fire spread from one vehicle to another and from vehicles to adjacent structures. This shall be accomplished with one-hour fire rated barriers creating a maximum of 2500 square foot fire areas between stackers or puzzlers and by providing adequate setback from adjacent structures.

Section 503.1.1 of the Fire Code is hereby amended to read as follows:

Exceptions 1.1 and 1.3 are not adopted.

503.1.1 Buildings and Facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45,720 mm) where any of the following conditions occur:

1.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3.

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

1.3. There are not more than two Group R-3 or Group U occupancies.

Section 503.2.3 of the Fire Code is hereby amended to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities. This is defined as Asphaltic Concrete or Concrete (including pervious concrete) installed over an adequate compacted road bed to support the imposed loads (75,000 pounds) of fire apparatus. Any type of pavers, whether grouted or bedded in sand, or grass block type surfaces, are not approved for fire access roads or fire lanes.

Section 507.1.1 is hereby added to the Fire Code to read as follows:

507.1.1. Fire Main, Hydrant Specifications. Notwithstanding anything to the contrary contained in this Code, all water mains providing a water supply for fire protection, both to fire hydrants and to fire

service systems, shall be not less than eight inches (8") in diameter (inside measurement) provided, however, the Fire Code Official may require different sizes based on the conditions of the site, but in no case shall the fire service main be less than six inches (6") in diameter (inside measurement). Maintenance of privately-owned water mains, fire hydrants, or other fire service systems (collectively referred to as 'Facilities') shall be performed by, and be the responsibility of, the owners thereof, and the City shall assume no liability for damages to the Facilities in performing tests to, or in using, such Facilities. Appendix Table B105.1 (1) is not adopted under this ordinance. Minimum fire flow for ~~one and two family~~one- and two-family dwellings under 3600 square feet shall be 1000 gallons of water per minute with two-hour flow duration. ~~Residual pressure shall not be less than 20 psi.~~Residual pressure shall not be less than 20 psi. For one and two family dwellings over 3600 square feet, the required fire flow shall be 50% of the value in Appendix Table B105.1 (2) with automatic fire sprinklers installed per Section 903.3.1.3 of the California Fire Code with a minimum flow requirement of 1000 gallons of water per minute. Appendix Table B105.2 is amended to allow a maximum reduction in required fire flow of 50% of the value in Table B105.1 (2) with a minimum fire flow of 1500 gallons per minute at 20 pounds per square inch residual pressure for buildings other than ~~one and two family~~one- and two-family residential dwellings with automatic fire sprinklers installed per Sections 903.3.1.1 or 903.3.1.2 of the California Fire Code.

Section 507.5.1.1 is hereby amended to read as follows:

507.5.1.1 Hydrant for standpipe systems and fire sprinkler systems. Buildings equipped with a standpipe system installed in accordance with Section 905 or a fire sprinkler system complying with section 903.3.1.1 shall have a fire hydrant within 50 feet (15,240 mm) of the fire department connections (FDC) located on the same side of the roadway.

Section 510.4.2.3 is hereby amended to read as follows:

510.4.2.3 Standby power. Emergency responder radio coverage systems shall be provided with dedicated standby batteries or provided with 2-hour standby batteries and connected to the facility generator power system in accordance with Section 1203. The standby power supply shall be capable of operating the emergency responder radio coverage system at 100-percent system capacity for a duration of not less than 24 hours.

Section 510.6.1 is hereby amended to read as follows:

510.6.1 Testing and proof of compliance. The owner of the building or owner's authorized agent shall have the emergency responder radio coverage system inspected and tested annually by a fire department approved testing company or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of but not be limited to the following:

1. In-building coverage test as described in Section 510.5.3.

2. Signal boosters shall be tested to verify that the gain is the same as it was upon initial installation and acceptance or set to optimize the performance of the system.

3. Backup batteries and power supplies shall be tested under load of a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.

4. Other active components shall be checked to verify operation within the manufacturer's specifications.

5. At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.43, shall be submitted to the fire code official.

### 3. Chapter 9: Fire Protection Systems and Equipment.

a. Section 901.1, Scope, Amended. Add the following language to Section 901.1 of the ~~2021~~2018 IFC and the ~~2022~~2019 CFC:

The Fire Code Official may require additional extinguishers, and/or extinguishers of different ratings for protection of special hazards or hazardous areas. The higher ratings may be permitted if in the opinion of the Fire Code Official, they are better suited to substantially protect or mitigate the hazard(s).

Section 901.6.3 of the Fire Code is hereby amended to read as follows:

901.6.3 Records. All contractors who service, test, install and/or maintain fire protection systems within the City of Redwood City are required to enroll and utilize the approved single-point repository service to file records of all system inspections, tests, and maintenance required by the referenced standards. This repository service shall be maintained and provided to the fire code official through a third party inspection reporting system. Fees, as applicable, will be paid directly from the contractor to the approved single-point repository service vendor.

b. Section 903.1 Amended. Section 903.2 of the code adopted in this section is deleted in its entirety and replaced by the following subsections 903.2.1.1 and 903.2.1.2:

903.2.1.1 New Construction. When the provisions of Chapter 9 of the ~~2021~~2018 IFC with the ~~2022~~2019 California Fire Code Amendments do not mandate automatic fire sprinkler system protection, and when the following occupancies are of new construction and the total square footage of the new building exceeds 2,500 square feet in size, or more than one-story in height, an automatic fire sprinkler system, shall be installed: Group A, Group B, Group E, (Non-public schools), Group F, Group H, Group I, Group M, and Group S occupancies.

903.2.1.2 Existing Construction. An approved automatic fire sprinkler system shall be installed in all locations of existing Group A, Group B, Group E (Non-public schools), Group F, Group H, Group I, Group M, Group R Division 2 (Hotels & Motels, only) and Group S occupancies, when the total square footage

of the existing building exceeds 2,500 square feet in size, or is greater than one-story in height, and one or more of the following items apply:

- a. Change to a more hazardous use/occupancy.
- b. When the Fire Code Official determines that an automatic sprinkler system is necessary due to emergency vehicle access, fire load, occupant load or an existing condition which may hinder fire suppression efforts in the event of a fire or other perils.
- c. Section 903.2.8 Amended. Section 903.2.8 of the code adopted in this section is deleted and amended and replaced by the following subsections 903.2.8.1 and 903.2.8.2:

#### 903.2.8.1 Group R, Division 1 and 2 Occupancies – New Construction.

When the provisions of Part 9, Title 24, C.C.R., ~~2022~~2019 California Fire Code Section 903 does not mandate automatic fire sprinkler system protection, an approved automatic fire sprinkler system shall be installed in all new Group R-1 and R-2 occupancies. Installation of the sprinkler system shall conform to NFPA Standard 13R if the residential building is four stories or less in height and with the following additional protection:

1. Sprinklers shall be installed throughout garages, open attached porches, carports, large under-floor spaces that are of combustible construction, and accessible for storage use.
2. Sprinklers shall be installed throughout attic areas.
3. All sprinkler piping in attics shall be copper.

#### 903.2.8.2 Group R, Division 3 Occupancies – New Construction.

An approved automatic fire sprinkler system shall be installed as per sections R313.1 and R313.2 of the ~~2022~~2019 California Residential Code. Installation of the automatic fire sprinkler system shall be in accordance with NFPA 13D standards and with the following areas of the residence to be protected by automatic fire sprinklers:

1. Sprinklers shall be installed throughout garages, carports, and similar attached structures.
2. Pilot Sprinklers shall be installed in attic areas at the entry point into the attic, near heat sources, and near mechanical equipment installed in the attic.

#### 903.2.8.2(A) Group R, Division 3 Occupancies – Existing Construction.

An approved automatic fire sprinkler system meeting the design criteria as stipulated in section 903 is required for existing Group R, Division 3 when the existing structure is demolished and is reconstructed to become a habitable space of 2,500 square feet or greater in size.

Demolished and Reconstruction means:



1. The building has been completely torn down to the foundation; the structure is being renovated and is made uninhabitable during said renovation or reconstruction. This includes the removal or inoperability of any or all of the utilities to the building for a period of time of more than twenty-four consecutive hours. Utilities mean: water, electrical, natural gas, and sanitary sewer.
2. The structure increases height from one story to a ~~two-story single-family~~ two-story single-family dwelling and is greater than 2,500 square feet.

NOTE: The purpose of the residential fire sprinkler systems is to provide a life safety evacuation fire suppression system for the occupants, as to increase the survivability rate during the occurrence of a residential structure fire.

Section 903.2.23 is hereby added to the Fire Code to read as follows:

903.2.23 – Automatic Sprinkler System Requirements for Type-IV A, B, and C Construction Types. Automatic sprinkler systems meeting section 903.3.1.1 of the fire code shall be installed throughout all new buildings built to Type-IV A, B, or C construction type. The design density for the automatic sprinkler system shall be a minimum design density of Ordinary Hazard Group-1 throughout the building regardless of use.

Section 903.4.2 is hereby amended as follows:

903.4.2 Alarms. One exterior approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. In addition, for automatic sprinkler systems installed under section 903.3.1.2 or 903.3.1.3, activation of ~~all of~~ the interconnected single station smoke alarms throughout the residence is required. An acceptable alternative to interconnection to the smoke alarms is the installation of horn strobe devices in locations that will provide adequate notification to all sleeping rooms: with at least one notification device per floor. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Visible alarm notification appliances shall not be required except when required by Section 907.

905.4 Location of Class I Standpipe Hose Connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at the intermediate floor landing unless otherwise approved by the fire code official.

Section 907.2.12.3.~~41~~ is hereby added to the Fire Code to read as follows:

907.2.12.3.~~41~~ Multistoried, Mid and High Rise Building Safety Requirements.

(a) Firefighters Communications Systems: Are not allowed in lieu of an approved ERRCS, but wWhen required by the Fire Code Official, buildings six (6) or more stories in height, firefighter's communication systems shall be installed in accordance with the following requirements:

(i) One access jack shall be provided at each stairwell landing and two (2) access jacks shall be provided in a lobby area of the building in plain view of elevator doors, and in any event at locations and according to specifications subject to the approval of the fire code official.

(ii) One telephone set shall be provided at each floor of the building; provided, that such telephone sets shall be located in the lobby area at a location and according to specifications subject to the approval of the fire code official.

(iii) One additional telephone set shall be provided with not less than five hundred feet (500') of telephone cord and shall be maintained on a roller device providing convenient portability. Said telephone set shall likewise be maintained at a location and according to specifications approved by the fire code official.

(b) Emergency Planning and Information: Buildings and occupancy groups specified in Title 19 of the California Code of Regulations, Section 3.09, and buildings with four (4) or more stories in height shall have posted a floor plan sign which shall provide emergency procedures at every stairway landing, elevator landing, and immediately inside all public entrances to the building. Information contained in the floor plan signs shall include, but shall not be limited to, the following:

1. Location of exits and fire alarm initiating stations;
2. Description of fire alarm sounds and appearance;
3. Fire Department emergency telephone number "911";
4. Prohibition of the use of elevators during emergencies;
5. Instructions to be followed by ambulatory, non-ambulatory, and disabled persons in the event of an emergency;
6. Notation 'you are here' or other readily understandable marking specifying the location on the floor plan sign.

Floor plan signs shall be printed in a non-decorative lettering which shall not be less than three-sixteenths of an inch (3/16") in height and shall provide a sharp contrast with the background. The information shall accurately depict the layout of the floor where the sign is located. Signs shall be mounted as specified by the California Building Code.

(c) Public Address System. In buildings four (4) or more stories in height, a public address system shall be installed for the exclusive use of Fire Department personnel, peace officers, or other City enforcement personnel according to specifications approved by the Fire Prevention Bureau. Controls for, and access

to, such system shall be installed on the ground floor of the building at a location subject to the approval of the fire code official.

(d) Fire Equipment enclosure: Buildings of four (4) or more stories in height, a secure cabinet or other enclosed area shall be provided as directed by the Fire Code Official for housing fire equipment. Fire equipment required to be provided by the property owner or developer shall be at the direction of the fire code official.

Section 913.2.3 is hereby added to the Fire Code to read as follows:

913.2.3 Alternate source of power. Notwithstanding the availability of a public utility to provide electric service for a fire pump, electrically driven fire pumps shall be provided with an alternate source of power in accordance with NFPA 20 due to foreseeable extended electrical service interruptions along the California Power Grid due to high demand, high heat, Public Safety Power Shutoffs, and damage to the power grid caused by destructive natural events such as wildfires, high winds, and earthquakes.

4. Chapter 49: Requirements for Wildland-Urban Interface (WUI) Fire Areas. Section 4901.01 amended to include:

VERY HIGH FIRE HAZARD SEVERITY ZONE MAP:

The City Council hereby adopts and designates the most recent Very High Fire Hazard Severity Zones map as recommended by the Director of the California Department of Forestry and Fire Protection, and retained on file, or via the internet, and made available at the offices of the Fire Chief and Building Official of the City of San Carlos. Buildings and structures shall comply with the provisions as stipulated by the City of San Carlos Building Official and the California Building Code Chapter 7A or the California Residential Code Section R337.

5. Chapter 56: Explosives Fireworks (Pyrotechnical Special Effects Materials) – Section 5601.1 Amended. Section 5601.1 of the ~~2022~~2019 CFC is amended and is replaced by the following sections:

5601.1-A: All non-professional fireworks listed by the California State Fire Marshal as “Safe and Sane” are prohibited within the jurisdictional boundaries of the City of San Carlos on a year-round basis.

5601.2: All professional pyrotechnical devices used for public display, or special effects, shall be in accordance with the applicable provisions of the State of California Code of Regulations, Title 19 and the applicable sections of the State of California Fire Code. Permits for public display and/or special effects shall be obtained from the City of San Carlos. Application for a use permit shall be submitted to the Fire Department thirty days prior to the event.

(Ord. 1554 §§ 3 – 8, 2019; Ord. 1553 § 2 (Exh. A (part)), 2019; Ord. Chapter 80, 13-22, Section 27.10 of the Fire Code is hereby amended to read as follows:

Fire sprinkler systems for the protection of laboratory buildings shall be designed and installed in accordance with this standard, with a minimum design density of Ordinary Hazard Group II.

Chapter 80, 13D-22, Section 6.2.2(2) of the Fire Code is hereby amended to read as follows:

(2) A stand-alone tank is permitted only if the following conditions are met:

(a) The pump shall be connected to a 220-volt circuit breaker shared with a common household appliance (e.g., range, oven, dryer),

(b) The pump shall be a stainless steel 220-volt pump,

(c) A valve shall be provided to exercise the pump. The discharge of the exercise valve shall drain to the tank, and

(d) A sign shall be provided stating: "Valve must be opened monthly for 5 minutes."

(e) A means for automatically refilling the tank level, so that the tank capacity will meet the required water supply duration in minutes, shall be provided.

(f) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.

(g) Any disconnecting means for the pump shall be approved.

(h) A method for refilling the tank shall be piped to the tank.

(i) A method of seeing the water level in the tank shall be provided without having to open the tank.

(j) The pump shall not be permitted to sit directly on the floor.

(k) A stand-alone tank and pump are only allowed in areas not served by a municipal water system and only by approval of the fire code official.

Chapter 80, 13D-22, Section 8.3.4 of the Fire Code is hereby amended to read as follows:

8.3.4 Sprinklers shall not be required in detached garages, open attached porches with no habitable space above, carports with no habitable space above, and similar structures.

(Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1512 §§ 3 – 8, 2016; Ord. 1470 § 1 (Exh. A (part)), 2013; Ord. 1469 §§ 3 – 8, 2013; Ord. 1432 §§ 1 – 5, 2011: Ord. 1428 § 2 (part), 2010)

#### **15.04.120 Title 24, Part 10, California Existing Building Code.**

Title 24, Part 10, the California Existing Building Code, ~~2022~~2019 Edition, is hereby adopted by reference. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

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

Title 24, Part 11, the California Green Building Standards Code (CALGreen), ~~2022~~2019 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 line~~townhouses 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.

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 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.

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 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.
- 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.

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 1/2" 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:

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

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.3.1 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:

1. 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:

1. 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 gas-fueled 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.

#### 5.106.1.3.2. 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:

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:~~

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](http://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](http://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, ~~2022~~2019 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. [1553 § 2 \(Exh. A \(part\)\)](#), [2019](#); Ord. 1513 § 1 (Exh. A (part)), 2016; Ord. 1470 § 1 (Exh. A (part)), 2013; Ord. 1428 § 2 (part), 2010)

#### **15.04.150 ~~2021~~2018 International Property Maintenance Code.**

The ~~2021~~2018 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.

D. Section 112.4. Insert [Two times the building permit fee], and delete “dollars or more than [AMOUNT] dollars.”

E. Section 302.4. Insert [Twelve (12) inches].

F. Section 304.14. Insert [January 1] to [December 31].

G. Section 602.3. Insert [January 1] to [December 31].

H. Section 602.4. Insert [January 1] to [December 31].

(Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.160 Safety Assessment Program (SAP) Placards.**

The Safety Assessment Program (SAP) placards are hereby adopted and establish standard placards to be used to indicate the condition of a structure for continued occupancy. This section further authorizes the Building Official and his or her authorized representatives to post the appropriate placard at each entry point of a building or structure upon completion of a safety assessment.

A. Application. The provisions of this section are applicable to all buildings and structures of all occupancies regulated by the City of San Carlos. The City Council may extend the provisions as necessary.

B. Definitions. “Safety assessment” means a visual nondestructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

C. Placards. The following are general descriptions of the official City of San Carlos placards to be used to designate the condition for continued occupancy for buildings or structures. The actual placards shall be in a form approved by the City Manager and substantially similar in substance to the following:

1. “INSPECTED – Lawful Occupancy Permitted” is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure. This placard shall be green.
2. “RESTRICTED USE” is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions for continued occupancy. This placard shall be yellow.
3. “UNSAFE – Do Not Enter or Occupy” is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Buildings or structures posted with this placard shall not be entered under any circumstances except as authorized in writing by the Building Official or his or her authorized representative. Safety assessment teams shall be authorized to

enter buildings posted with a red placard at any time. This placard shall not be used or considered as a demolition order. The individual who posts a red placard shall note in general terms the type of damage encountered. This placard shall be red.

The name of the jurisdiction, its address, and phone number shall be included on each placard posted.

Once a placard has been attached to a building or structure, it shall not be removed, altered, or covered except by an authorized representative of the Building Official, or upon written notification by the Building Official.

It shall be unlawful for any person, firm, or corporation, to alter, remove, cover, or deface a posted placard unless authorized by this section. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. [1513 § 1 \(Exh. A \(part\)\)](#), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

#### **15.04.170 Findings.**

The following findings have been made:

A. Geologic. The City of San Carlos is located near a very active seismic area, seismic zone E (previously known as seismic zone 4). The entire City is two to seven kilometers from the San Andreas Fault, a major active fault in California.

There are five major soils types in the City from the bay to the hillsides. There is existing fill overlying unconsolidated Holocene Bay mud deposits. There is unconsolidated Holocene fine- to coarse-grained alluvial fan and basin deposits with a water table equal to or less than ten feet. There is unconsolidated Holocene fine- to coarse-grained alluvial fan deposits with a water table equal to or greater than ten feet. There are weak consolidated Pleistocene fine- to coarse-grained alluvial fan and basin deposits. There are colluvial and landslide deposits locally overlying sandstone and bedrock units.

There are high flooding hazards in two of the five soils types and moderate flooding hazards in two of the five. There is high ground settlement potential in the area along the bay. There is high potential for seismically induced ground failure in the same area and moderate potential in the adjacent area.

There is a high potential for seismically induced ground shaking in all areas in the City. There is a high potential for liquefaction in the area adjacent to the bay and moderate potential in the adjacent area. There is moderate potential for erosion and slope instability/landslides in approximately fifty percent of the City. Expansive soils or bedrock varies in significance in over two-thirds of the entire City.

These actions can cause great damage to structures in or on the ground. Gypsum wallboard and exterior Portland cement plaster have performed poorly during recent California seismic events. Cyclic seismic action testing has proven the limited seismic resistance of these materials.

POTENTIAL GEOLOGIC AND SEISMIC HAZARDS MAP

Based upon these geologic findings, the City Council hereby adopts and designates the Harlan Tait Associates "Potential Geologic and Seismic Hazards Map, City of San Carlos, California" dated February 22, 1996, and Hazard Zone A and Hazard Zone B handouts, as minimum criteria to determine when a geotechnical investigation report (soils report) is required for development within the City.

B. Climatic. The local climate is characterized by markedly delineated rainy and dry seasons, which tend to maximize the expansive characteristics of soil.

C. Topography. San Carlos topography includes mountain and foothill areas. The ground elevation rises over nine hundred feet in less than one mile in much of the City resulting in large areas of unstable, steep slopes. Upgraded structural provisions are required to construct housing on these unpredictable, unstable steep slopes. Upgraded automatic sprinkler provisions are required due to approximately one-quarter of residential properties located in very high fire hazard severity zone.

D. The City Council hereby declares that it would have passed the ordinance codified in this chapter sentence by sentence, paragraph by paragraph and section by section, and does hereby declare that any provisions in this chapter are severable and, if for any reason any sentence, paragraph or section of this chapter shall be held invalid, such decision shall not affect the validity of the remaining parts of this chapter.

E. The ordinance codified in this chapter shall be published and posted according to law and shall take effect and be in force from and after thirty days after its passage and adoption. (Ord. [1553 § 2 \(Exh. A \(part\)\)](#), 2019: Ord. 1513 § 1 (Exh. A (part)), 2016: Ord. 1470 § 1 (Exh. A (part)), 2013: Ord. 1428 § 2 (part), 2010)

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

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SAN CARLOS  
AMENDING SAN CARLOS MUNICIPAL CODE SECTION 15.04.110 – CALIFORNIA FIRE  
CODE – TO ADOPT THE 2021 EDITION OF THE INTERNATIONAL FIRE CODE AND THE  
2022 CALIFORNIA FIRE CODE INCLUDING ALL ADOPTED STANDARDS AS SPECIFIED  
PRESCRIBING REGULATIONS GOVERNING CONDITIONS HAZARDOUS TO LIFE AND  
PROPERTY FROM FIRE, HAZARDOUS MATERIALS, OR EXPLOSION, AND FOR PROVIDING  
THE FIRE SAFETY INSPECTION PROCESS FOR HAZARDOUS USES OR OPERATIONS,  
AND ESTABLISHING A BUREAU OF FIRE PREVENTION (SAN CARLOS FIRE ORDINANCE).**

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

**SECTION 1:**

**WHEREAS**, the City Council finds that the unique characteristics of topography, geological, and climatic conditions, and the balance of residential, commercial, and industrial properties in the areas served by the San Carlos Fire Department requires adoption of the 2021 International Fire Code (IFC) and the 2022 California Fire Code (CFC) and amendments; and

**WHEREAS**, on July 7, 2011, the City of San Carlos and the City of Redwood City entered into agreement as participating agencies for fire and emergency services; and

**WHEREAS**, the City of San Carlos is required to formally adopt a Fire Code, and to comply with California Health and Safety Code Sections, 13143.5, 13145, and 13146, for the enforcement provisions of the California Fire Code; and

**WHEREAS**, the City of San Carlos currently shares fire protection services, including inspections and plan review, with the City of Redwood City and finds the need for a comprehensive San Carlos Fire Ordinance to ensure life-safety and protection for citizens and business owners of the City of San Carlos; and

**WHEREAS**, to promote consistency with enforcement of the Fire Code, and to make government operations more effective, the City Council desires to have a San Carlos Fire Ordinance that shares some of the same language and amendments with that of the City of Redwood City; and

**WHEREAS**, the City Council desires to make findings for the proposed amendments to the 2021 International Fire Code (IFC) and the 2022 California Fire Code in the San Carlos Municipal Code, Chapter 15.04, Technical Building Codes to further enhance and ensure life-safety.

**SECTION 2:** The City Council makes the following findings:

1. Findings.

- A. Pursuant to Sections 17958.5 and 18941.5 of the California Health and Safety Code, the report contained herein is submitted as the “Findings of Fact”

document regarding the adoption of the City of San Carlos (hereafter referred to as the City) Local Ordinance, which would adopt the 2021 International Fire Code and the 2022 California Fire Code, the International Fire Code Standards, and the below mentioned local amendments. Under this adopting ordinance, specific amendments have been established, which are more restrictive in nature than those adopted by the State of California (State Building Standards Commission), commonly referred to as the California Code of Regulations Title 24.

- B. These local amendments to the 2021 International Fire Code and the 2022 California Fire Code have been recognized by the City as tools for addressing the fire and life-safety hazard problem, concerns, and future direction by which the City can establish and maintain an environment, which will afford a level of fire and life-safety to all who live and work within the City of San Carlos Fire Department jurisdictional boundaries.
- C. Under the provisions of Sections 17958.5 and 18941.5 of the California Health and Safety Code, local amendments shall be based upon the following conditions: Climatic, Geological, and Topographical. The “Findings of Fact” contained herein shall address each of these situations and shall present the local situation, which, either singularly or in combination, caused the established amendments to be adopted.

1) Climatic:

The areas served by the City, on average, experience an annual rainfall between 8 to 18 inches. This rainfall can be expected between October and April of each year and is based on the 100-year weather almanac. However, during the summer and early fall months there is little, if any, measurable precipitation. During this dry period, the temperatures are usually between 70°- 90° with light to gusty westerly winds. These drying winds, mixed with the natural vegetation, which is dominant throughout the area, create a hazardous fuel condition, which further creates extensive grass and brushland fire risk. With residential developments encroaching into these wooded and grass, or brush-covered areas, wind and terrain-driven fires could have severe consequences to improved properties at risk. This has been demonstrated on several occasions in other areas of our State Fire/Rescue Aid Regions.

2) Geological:

- a. Geographic Location. The area served by the City is located in San Mateo County. This area identified as being in the southern region of the county.
- b. Seismic Location. The relatively young geological processes that have created the San Francisco Bay region are still active today. Seismically, the City sits along the active San Andreas Fault, and is rated as a Seismic Zone E.
- c. Size and population. Areas served by the Fire Department encompass approximately 6 square miles and 28,000 people.

- d. Roads and Streets. The number of vehicle miles driven is steadily increasing despite limited growth. Many older streets are narrow and steep. The impact of additional planned developments and increased traffic flow will continue to create an effect on the delivery of fire protection services.
- e. Soil Conditions. The City of San Carlos lies in the southern end of San Mateo County. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as Bay Mud, which varies in thickness from a few feet to as much as thirty (30) feet. Bedrock lies beneath the area at depths generally three hundred (300) feet or more. The topography is essentially flat, dropping from an elevation of eight hundred (800) feet to sea level. The slope of the city extends upwards on the western side. Slopes range from (0) degrees to more than (20) degrees on some streets.
- f. Vegetation. The hilly portion of the City of San Carlos contains trees, dense brush vegetation and a heavy growth of natural grasses. The City and surrounding areas suffer several wildland fires each year.

### 3) Topographical:

The topographical element, as would be expected, is closely associated with the geographical element. With elevation changes in the City, development is of a geographical concern. With these changes development is, of course, following the path of least resistance; thereby creating a meandering pattern. This does not lend itself to a good systematic street and road layout, which would promote easy traffic flow. It has, in fact, resulted in few major cross-town thoroughfares, which tend to be heavily congested, primarily during commute hours and seasonal periods of the year. "Pass-through" vehicular traffic in the cities, such as the areas of the Alameda de Las Pulgas, Brittan Ave., San Carlos Ave., Edgewood Road, and El Camino Real. This increased commute time increases traffic for eastbound and westbound vehicular movement to US 101 and Interstate 280. This creates barriers, which increases the response time of fire apparatus and other emergency vehicles. The topography of the city is also being burdened by major structures. Employment areas are throughout the city, and the people who work in these complexes have added to the traffic congestion throughout the cities, thereby increasing fire apparatus response times.

Inherent delays caused by the traffic patterns to many of these types of projects make it necessary to mitigate this problem by requiring additional built-in automatic fire protection and detection systems that provide early detection and initial control of fires until the arrival of the fire department.

As a result of the "Findings of Fact," which identify the various climatic, geographical, and topographical elements, additional requirements as specified in the amendments to the adopting ordinance for the 2021 International Fire Code and the 2022 California Fire Code and the International Fire Code Standards by the City, are considered reasonable and necessary modifications. The experiences of several disastrous urban-wildland interface fires within Alameda, Santa Clara, San Mateo, Monterey Sonoma, Napa, and Contra Costa Counties have demonstrated the need for other fire protection features/regulations. While it is clearly understood that the adoption of such regulations may not prevent the incidence of fire, the implementation will reduce the severity and potential loss of life and property of those fires which do occur.



### **SECTION 3: Adoption of the 2021 International Fire Code and the 2022 California Fire Code.**

These codes are hereby adopted in their entirety by the City of San Carlos, for the purposes of prescribing regulations governing the conditions hazardous to life and property and for protection from fire, hazardous materials, or explosion, contained within the 2021 International Fire Code and the 2022 California Fire Code, Title 24, Part 9, including all Appendix Chapters with the exceptions of the following appendix chapters: A-Board of Appeals, E-Hazard Categories, F-Hazard Ranking, G-Cryogenic Fluids, J-Building Information Sign, L-Fire Fighter Air Replenishment Systems, M-High-Rise Buildings-Retroactive Automatic Fire Sprinkler Requirements, and the International Fire Code Standards, as compiled, recommended and published by the International Code Council (ICC). One (1) copy of said Code and Standards, including local amendments herein adopted and made part thereof, entitled "AMENDMENTS TO THE 2021 INTERNATIONAL FIRE CODE AND THE 2022 CALIFORNIA FIRE CODE" have been, and are now filed with the office of the Clerk for the City of San Carlos. The same are hereby adopted and incorporated as fully as if set out at length herein, and from the date on which this ordinance shall take effect, the provisions, thereof, shall be controlling within the limits of the City of San Carlos Fire Department. Note: When sections noted in this ordinance stipulate the IFC, this shall mean the 2021 Edition of the International Fire Code for non-State Fire Marshal regulated occupancies. When sections noted in the ordinance stipulate the CFC, this shall mean the 2022 California Fire Code, for California State Fire Marshal regulated occupancies for both building and non-building regulations.

### **SECTION 4: Establishment and Duties of the Bureau of Fire Prevention.**

The International Fire Code and the California Fire Code, including International Fire Code Standards as adopted and amended herein, shall be enforced by the City of San Carlos Fire Department, and managed by the City of Redwood City Fire Department (Bureau of Fire Prevention), and shall operate under the direction of the Fire Chief and the Fire Marshal of the Redwood City Fire Department. Both Fire Officers shall be known as the Fire Code Officials.

### **SECTION 5: Definitions.**

- 3.1 Whenever the word "jurisdiction" is used in the International/California Fire Code, and Fire Code Standards, it is the City of San Carlos.
- 3.2 The party responsible for the enforcement of the International/California Fire Code and Fire Code Standards under the direction of the Fire Chief of the Redwood City Fire Department shall be the Fire Marshal.
- 3.3 Add the following definition: "Fire Marshal" is the Fire Code Official of the Bureau of Fire Prevention.

### **SECTION 6: Appeals.**

Whenever the Fire Code Official disapproves an application or refuses to grant a permit applied for or when it is claimed that the provisions of the code do not apply or that the true intent and meaning of the code have been misconstrued or wrongly interpreted, the applicant may appeal the decision of the Fire Code Official to the City Council of the City of San Carlos. For State Fire Marshal regulated occupancies, see section 111.2.5 of the California Fire Code, Part 9, Title 24 CCR.

## **SECTION 7: Penalties-109, 2021 IFC and 2022 CFC.**

Any person who shall violate any of the provisions of this code or standards hereby adopted, or fails to comply therewith, or who shall violate or fail to comply with any order made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder, or any certificate or permit issued thereunder, and from which no appeal has been taken, or who shall fail to comply with such an order affirmed or modified by the Fire Code Official shall be guilty of a misdemeanor. Upon conviction, the court shall impose a fine not less than \$500 dollars or more than \$1,000 dollars or imprisonment for not less than 180 days or both.

Notwithstanding any other provision of this code, whenever violation of any section contained in this code is punishable as a misdemeanor, the prosecuting attorney having jurisdiction to prosecute said misdemeanor, may specify that the offense is an infraction and proceed with prosecution as an infraction, unless the defendant, at the time of his arraignment or plea, objects to the offense being made an infraction, in which event the complaint shall be amended to charge a misdemeanor and the case shall proceed on a misdemeanor complaint.

The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects; and when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

1. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.
2. Due to the potential danger of the hazardous materials regulated under the International/California Fire Code, any person, firm, or corporation who violates any of the provisions of the International/California Fire Code, shall be liable for civil penalties not exceeding \$500 dollars per day for the first ten days; and \$1,000 dollars per day for the next 20 days; and \$5,000 dollars for each day after twenty. This shall apply to each violation.
3. In addition to the penalties set out in this Code, any condition caused or permitted to exist in violation of any of the provisions of this Code shall be deemed a public nuisance and may be summarily abated as such, and each day such condition continues shall be regarded as a new separate offense. The City of San Carlos shall also be permitted the right of recovering those funds, used to mitigate continuous, unabated hazards, which present a clear and present danger. The cost recovery fee shall be the based on the actual hourly rate for Fire Department personnel, used in gaining compliance for those in violation.

## **SECTION 8: Text Language and Local Amendments.**

### **CHAPTER 1: Administration.**

Section 104.10.3 is hereby added to read as follows:

104.10.3. New materials, processes, occupancies, requiring permits. The Fire Chief and the Fire Marshal shall act as a committee to determine and specify, after giving affected persons an opportunity to be heard, any new materials, processes, or occupancies, which shall require permits, in addition to those now enumerated in the Fire Code.

Section 111.1, 111.2, 111.3, and 111.4. Amended.

Section 111.1, 111.2, 111.3, and 111.4 of the 2022 CFC is hereby deleted in its entirety and replaced with the following language as follows:

Appeals. In order to determine the suitability of alternate materials and types of construction, to provide for reasonable interpretations of this code, and relief by way of appeal from the granting or denial of any permit, this shall be and hereby is created a Board of Appeals consisting of members of the City Council, to pass upon pertinent matters, who shall grant such relief or make such interpretation or explanation as may be necessary and proper pursuant to the provisions of this code. The Fire Chief shall be an exofficio member and shall act as Secretary of the Board. The Board of Appeals shall be the San Carlos City Council. The Board shall adopt reasonable rules and regulations for conducting its investigations and shall render all decisions and findings in writing to the Fire Chief, with duplicate copy to the appellant, and may recommend to the executive body such new legislation consistent therewith.

Whenever the Fire Code Official / Fire Marshal disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code do not apply or that the true intent and meaning of the code have been misconstrued or wrongly interpreted, the applicant may appeal the decision of the Fire Code Official to the San Carlos City Council. Such appeal shall be made within thirty (30) days from the date of the decision being appealed and shall be in writing and filed with the City Clerk of the City of San Carlos. Said notice of appeal shall be accompanied by a payment of \$100.00, payable to the City of San Carlos.

The notice of appeal shall:

1. Specify the substance and particulars of the decision being appealed.
2. Show the date of the decision.
3. Be signed by the appellant or his/her duly authorized agent.
4. Indicate the mailing address of the appellant.

Whenever a notice of appeal is filed with the City Clerk, the Clerk shall set the matter for the hearing at the earliest reasonable time and shall notify the appellant of the place, date and time for the hearing and consider the appeal.

The City Clerk shall give notice of the hearing to the appellant at least seven days prior to the time set for the hearing. Notice shall be given to the appellant by mailing said notice to the address shown on the notice of appeal.

Section 105.1.2.1. Added: Section 105.1.2.1 is hereby added to the Fire Code and shall read as follows:

#### 105.1.2.1. Fees and Special Requirements.

The fees for permits and other services shall be as established by resolution of the San Carlos City Council. The fees shall be set as a cost recovery for services provided by the Fire Department staff and Redwood City Fire Department Management staff to review and inspect the intended activities, operations, or functions as stipulated by section 105.1.1 and section 105.1.2 "Types of Permits". Subsection 2, Construction Permit is adopted as written by model code. Operational Permits as indicated in section 105, subsection

105.1.2, Sub-section 1 is “not” adopted as written by model code for this ordinance. Section 105.1.1 is amended and enforceable as follows:

105.1.1. Construction Permits Required and Fire Clearance Inspections.

105.1.1. Permits required by this code for construction related provisions for fire and life safety that is under the responsibility of the fire department, shall be obtained upon approval of said construction plans and documents. This includes but is not limited to; architectural fire plan review, site plan review, automatic fire alarm systems, automatic fire sprinkler systems, automatic fire suppression systems, wildland urban intermix mitigation plans, and any other review of plans and specifications that require the approval of the Fire Code Official.

105.1.2. Fire clearance inspections are that maintenance type of fire code inspections performed to all occupancies that are under the jurisdictional enforcement powers of the City of San Carlos Fire Department.

Operational use permits “are not” issued on a regular or annual basis as per section 105.6 of the 2019 California Fire Code. Fire clearance inspections are designed to unify fire code operational use permits under one fire clearance inspection procedure, thereby; having one inspection inclusive of any potentially issued operational use permits. On a case- by- case basis, operational use permits may be issued when deemed necessary by the Fire Code Official.

All fire construction plan check and construction permit fees and fire clearance inspection fees must be paid to the City of San Carlos Permit Center prior to engaging in the listed activities, operations, or functions. A penalty for all permit payments delinquent after 30 days shall be a doubling of the original fee.

CHAPTER 2. Definitions.

Section 202 High Rise Structure Definition is hereby amended to read as follows:

202 High Rise Structure. Every building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet above the lowest level of fire department vehicle access (see Section 403), except buildings used as hospitals as defined in Health and Safety Code Section 1250.

CHAPTER 3. General Fire Safety Precautions.

Section 307. Amended: Section 307 of the 2022 CFC is deleted in its entirety and is replaced by the following section:

Section 307.1. General: Open burning is strictly prohibited within the jurisdictional boundaries of the City of San Carlos. Open burning does not include approved exterior fireplaces or barbecues that are used in a safe manner and used for cooking or warming purposes only. The Fire Chief prohibits burning of trash or vegetation, except for fire hazard reduction purposes when deemed necessary to abate an immediate fire hazard or during wildland fire suppression activities.

Section 324 is hereby added to the Fire Code to read as follows:

324 Car Stackers and Car Puzzler Systems. Car stackers and car puzzler systems are defined as manual, or automatic, rack vehicle storage systems designed to park cars vertically and / or horizontally inside structures or under canopies such that the vehicles are in close proximity to one another with limited access for firefighters. The configuration of the vehicles stored in these systems presents an exposure hazard from one vehicle to another in the event of a vehicle fire.

Parking areas inside buildings or under attached canopies equipped with car stackers or car puzzler systems shall be protected from above by an automatic fire sprinkler system designed to a density of Extra Hazard Group 2. Standard coverage sidewall sprinklers, listed for Ordinary Hazard Group 2 shall be provided to protect each parking level, including the bottom levels. The maximum coverage of a sidewall sprinkler is 80 sq. ft. and the use of extended coverage sidewall heads for protection is prohibited.

The basic design area of application for the increased density fire sprinkler system protecting the car stacker or car puzzler systems shall be 2,500 square feet. The design area of application may be reduced upon approval by the fire code official but never less than 1,500 square feet if one-hour rated walls are provided between the stacker parking area and other standard parking stalls or storage areas, and the car stacker system is divided into a maximum of 1,000 square foot fire areas by one-hour rated fire barriers. Flow from all fire sprinkler heads, upright, pendant, and sidewall, at all levels, and located in the design area of application shall be included in the hydraulic calculations for the fire sprinkler system.

Car stackers and car puzzler systems installed inside structures or under attached canopies shall be provided with Manual Wet or Automatic Wet Standpipe connections at all points of access and at each parking level within the structure so that every part of the parking area is within 150 feet by hose pull of a standpipe connection.

Car stackers and car puzzler systems installed inside structures shall be provided with a mechanical smoke and heat removal system as per Section 910.4 of the California Fire Code. The smoke and heat removal system shall be automatically activated upon detection of fire by the fire alarm system. Section 910.4.4 is not applicable to this requirement.

Car stacker and car puzzler systems installed outside structures that are open to the environment shall be configured to limit fire spread from one vehicle to another and from vehicles to adjacent structures. This shall be accomplished with one-hour fire rated barriers creating a maximum of 2500 square foot fire areas between stackers or puzzlers and by providing adequate setback from adjacent structures.

## CHAPTER 5. Fire Service Features.

Section 503.1.1 of the Fire Code is hereby amended to read as follows:

Exceptions 1.1 and 1.3 are not adopted.

503.1.1 Buildings and Facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45,720 mm) where any of the following conditions occur:

~~1.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3.~~

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

~~1.3. There are not more than two Group R-3 or Group U occupancies.~~

Section 503.2.3 of the Fire Code is hereby amended to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all weather driving capabilities. This is defined as Asphaltic Concrete or Concrete (including pervious concrete) installed over an adequate compacted roadbed to support the imposed loads (75,000 pounds) of fire apparatus. Any type of pavers, whether grouted or bedded in sand, or grass block type surfaces, are not approved for fire access roads or fire lanes.

Section 507.1.1 is hereby added to the Fire Code to read as follows:

507.1.1. Fire Main, Hydrant Specifications. Notwithstanding anything to the contrary contained in this Code, all water mains providing a water supply for fire protection, both to fire hydrants and to fire service systems, shall be not less than eight inches (8") in diameter (inside measurement) provided, however, the Fire Code Official may require different sizes based on the conditions of the site, but in no case shall the fire service main be less than six inches (6") in diameter (inside measurement). Maintenance of privately-owned water mains, fire hydrants, or other fire service systems (collectively referred to as 'Facilities') shall be performed by, and be the responsibility of, the owners thereof, and the City shall assume no liability for damages to the Facilities in performing tests to, or in using, such Facilities. Appendix Table B105.1 (1) is not adopted under this ordinance. Minimum fire flow for one- and two-family dwellings under 3600 square feet shall be 1000 gallons of water per minute with two-hour flow duration. Residual pressure shall not be less than 20 psi. For one- and two-family dwellings over 3600 square feet, the required fire flow shall be 50% of the value in Appendix Table B105.1 (2) with automatic fire sprinklers installed per Section 903.3.1.3 of the California Fire Code with a minimum flow requirement of 1000 gallons of water per minute. Appendix Table B105.2 is amended to allow a maximum reduction in required fire flow of 50% of the value in Table B105.1 (2) with a minimum fire flow of 1500 gallons per minute at 20 pounds per square inch residual pressure for buildings other than one- and two-family residential dwellings with automatic fire sprinklers installed per Sections 903.3.1.1 or 903.3.1.2 of the California Fire Code.

Section 507.5.1.1 is hereby amended to read as follows:

507.5.1.1 Hydrant for standpipe systems and fire sprinkler systems. Buildings equipped with a standpipe system installed in accordance with Section 905 or a fire sprinkler system complying with section 903.3.1.1 shall have a fire hydrant within 50 feet (15,240 mm) of the fire department connections (FDC) located on the same side of the roadway.

Section 510.4.2.3 is hereby amended to read as follows:

510.4.2.3 Standby power. Emergency responder radio coverage systems shall be provided with dedicated standby batteries or provided with 2-hour standby batteries and connected to the facility generator power system in accordance with Section 1203. The standby power supply shall be capable of operating the emergency responder radio coverage system at 100-percent system capacity for a duration of not less than 24 hours.

Section 510.6.1 is hereby amended to read as follows:

510.6.1 Testing and proof of compliance. The owner of the building or owner's authorized agent shall have the emergency responder radio coverage system inspected and tested annually by a fire department approved testing company or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of but not be limited to the following:

1. In-building coverage test as described in Section 510.5.3.
2. Signal boosters shall be tested to verify that the gain is the same as it was upon initial installation and acceptance or set to optimize the performance of the system.
3. Backup batteries and power supplies shall be tested under load of a period of 1 hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.
5. At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.4, shall be submitted to the fire code official.

## CHAPTER 9: Fire Protection Systems and Equipment.

Section 901.1. Scope Amended.

Add the following language to section 901.1 of the 2019 CFC.

The Fire Code Official may require additional extinguishers, and/or extinguishers of different ratings for protection of special hazards or hazardous areas. The higher ratings may be permitted if in the opinion of the Fire Code Official, they are better suited to substantially protect or mitigate the hazard(s).

Section 901.6.3 of the Fire Code is hereby amended to read as follows:

901.6.3 Records. All contractors who service, test, install and/or maintain fire protection systems within the City of Redwood City are required to enroll and utilize the approved single-point repository service to file records of all system inspections, tests, and maintenance required by the referenced standards. This repository service shall be maintained and provided to the fire code

official through a third-party inspection reporting system. Fees, as applicable, will be paid directly from the contractor to the approved single-point repository service vendor.

Section 903.2 of this code is hereby amended as follows:

903.2 New Construction. When the provisions of section 903.2.1 through 903.2.12 of the 2019 California Fire Code do not mandate automatic fire sprinkler system protection, and when the following occupancies are of new construction and the total square footage of the new building exceeds 2,500 square feet in size, or more than one-story in height, an automatic fire sprinkler system, shall be installed in the following occupancy classifications: Group A, Group B, Group E, (Non-public schools), Group F, Group H, Group I, Group M, Group R, and Group S occupancies.

903.2 Existing Construction. An approved automatic fire sprinkler system shall be installed throughout all locations of existing Group A, Group B, Group E (Non-public schools), Group F, Group H, Group I, Group M, Group R, and Group S occupancies, when the total square footage of the existing building exceeds 2,500 square feet in size, or is greater than one-story in height, and one or more of the following items apply:

- a. Change to a more hazardous use/occupancy.
- b. When the Fire Code Official determines that an automatic sprinkler system is necessary due to emergency vehicle access, fire load, occupant load or an existing condition which may hinder fire suppression efforts in the event of a fire or other perils.

Section 903.2.8. Amended. Section 903.2.8 of the Fire Code is amended, and the following new sections are added:

903.2.8.(a) New Construction.

When the provisions of Section 903 of the Fire Code do not mandate automatic fire sprinkler system protection, an approved automatic fire sprinkler system shall be installed in all new Group R-1 and R-2 occupancies. Installation of the sprinkler system shall conform to NFPA Standard 13R if the residential building is four stories or less in height and with the following additional protection:

1. Sprinklers shall be installed throughout garages, open attached porches, carports, large under-floor spaces that are of combustible construction, and accessible for storage use.
2. Sprinklers shall be installed throughout attic areas.
3. All sprinkler piping in attics shall be copper.

903.2.8(b) Group R, Division 3 Occupancies – New Construction.

An approved automatic fire sprinkler system shall be installed as per sections R313.1 and R313.2 of the 2022 California Residential Code. Installation of the automatic fire sprinkler system shall be in accordance with section 903.3.1.3 (NFPA 13D) of the 2022 CFC and with the following areas of the residence to be protected by automatic fire sprinklers:



1. Sprinklers shall be installed throughout garages, carports, and similar attached structures.
2. Pilot Sprinklers on metallic piping shall be installed in attic areas at the entry point into the attic, near heat sources, and near mechanical equipment installed in the attic.

903.2.8(c) Group R, Division 3 Occupancies-Existing Construction.

An approved automatic fire sprinkler system meeting the design criteria as stipulated in section 903.1.3 of the Fire Code is required for existing Group R, Division 3 when the existing structure is demolished and is reconstructed to become 2,500 square feet or greater in size.

Demolished and Reconstruction means:

1. The building has been completely torn down to the foundation; the structure is being renovated and is made uninhabitable during said renovation or reconstruction. This includes the removal or inoperability of any or all the utilities to the building for a period of more than twenty-four consecutive hours. Utilities mean, water, electrical, natural gas, and sanitary sewer.
2. The structure increases height from one story to a two-story single-family dwelling and is greater than 2,500 habitable square feet.

Section 903.2.23 is hereby added to the Fire Code to read as follows:

903.2.23 – Automatic Sprinkler System Requirements for Type-IV A, B, and C Construction Types. Automatic sprinkler systems meeting section 903.3.1.1 of the fire code shall be installed throughout all new buildings built to Type-IV A, B, or C construction type. The design density for the automatic sprinkler system shall be a minimum design density of Ordinary Hazard Group-1 throughout the building regardless of use.

Section 903.4.2 is hereby amended as follows:

903.4.2 Alarms. One exterior approved audible device, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. In addition, for automatic sprinkler systems installed under section 903.3.1.2 or 903.3.1.3, activation of all the interconnected single station smoke alarms throughout the residence is required. An acceptable alternative to interconnection to the smoke alarms is the installation of horn strobe devices in locations that will provide adequate notification to all sleeping rooms with at least one notification device per floor. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Visible alarm notification appliances shall not be required except when required by Section 907.

Section 905.4 is hereby amended to read as follows:

905.4 Location of Class I Standpipe Hose Connections. Class I standpipe hose connections shall be provided in all the following locations:

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at the intermediate floor landing unless otherwise approved by the fire code official.

Section 907.2.12.3.4 is hereby added to the Fire Code to read as follows:

907.2.12.3.4 Multistoried, Mid- and High-Rise Building Safety Requirements.

- (a) Firefighters Communications Systems: Are not allowed in lieu of an approved ERRCS, but when required by the Fire Code Official, buildings six (6) or more stories in height, firefighter's communication systems shall be installed in accordance with the following requirements:
  - (i) One access jack shall be provided at each stairwell landing and two (2) access jacks shall be provided in a lobby area of the building in plain view of elevator doors, and in any event at locations and according to specifications subject to the approval of the Fire Code Official.
  - (ii) One telephone set shall be provided at each floor of the building, provided that such telephone sets shall be in the lobby area at a location and according to specifications subject to the approval of the Fire Code Official.
  - (iii) One additional telephone set shall be provided with not less than five hundred feet (500') of telephone cord and shall be maintained on a roller device providing convenient portability. Said telephone set shall likewise be maintained at a location and according to specifications approved by the Fire Code Official.
- (b) Emergency Planning and Information: Buildings and occupancy groups specified in Title 19 of the California Code of Regulations, Section 3.09, and buildings with four (4) or more stories in height shall have posted a floor plan sign which shall provide emergency procedures at every stairway landing, elevator landing, and immediately inside all public entrances to the building. Information contained in the floor plan signs shall include, but shall not be limited to, the following:
  - 1. Location of exits and fire alarm initiating stations.
  - 2. Description of fire alarm sounds and appearance.
  - 3. Fire Department emergency telephone number "911".
  - 4. Prohibition of the use of elevators during emergencies.
  - 5. Instructions to be followed by ambulatory, non-ambulatory, and disabled persons in the event of an emergency.
  - 6. Notation 'you are here' or other readily understandable marking specifying the location on the floor plan sign.

Floor plan signs shall be printed in a non-decorative lettering which shall not be less than three-sixteenths of an inch (3/16") in height and shall provide a sharp contrast with the background. The information shall accurately depict the layout of the floor where the sign is located. Signs shall be mounted as specified by the California Building Code.

- (c) Public Address System. In buildings four (4) or more stories in height, a public address system shall be installed for the exclusive use of Fire Department personnel, peace officers, or other City enforcement personnel according to specifications approved by the Fire Prevention Bureau. Controls for, and access to, such system shall be installed on the ground floor of the building at a location subject to the approval of the fire code official.
- (d) Fire Equipment enclosure: Buildings of four (4) or more stories in height, a secure cabinet or other enclosed area shall be provided as directed by the Fire Code Official for housing fire equipment. Fire equipment required to be provided by the property owner or developer shall be at the direction of the Fire Code Official.

Section 913.2.3 is hereby added to the Fire Code to read as follows:

913.2.3 Alternate source of power. Notwithstanding the availability of a public utility to provide electric service for a fire pump, electrically driven fire pumps shall be provided with an alternate source of power in accordance with NFPA 20 due to foreseeable extended electrical service interruptions along the California Power Grid due to high demand, high heat, Public Safety Power Shutoffs, and damage to the power grid caused by destructive natural events such as wildfires, high winds, and earthquakes.

Chapter 49. Requirements for Wildland-Urban Interface (WUI) Fire Areas:

Section 4901.1. Amended to include:

VERY HIGH FIRE HAZARD SEVERITY ZONE MAP:

The City Council hereby adopts and designates the most recent Very High Fire Hazard Severity Zones map as recommended by the Director of the California Department of Forestry and Fire Protection and retained on file, or via the internet, and made available at the offices of the Fire Chief and Building Official of the City of San Carlos. Buildings and structures shall comply with the provisions as stipulated by the City of San Carlos Building Official, the California Building Code Chapter 7A, or the California Residential Code Section R337.

Chapter 56. Explosives Fireworks (Pyrotechnical Special Effects Materials):

Section 5601.1 Amended: Chapter 5601.1 of the 2022 CFC is hereby amended, and the following sections are added:

5601.1(a) All non-professional fireworks listed by the California State Fire Marshal as "Safe and Sane" are prohibited within the jurisdictional boundaries of the City of San Carlos on a year-round basis.

5601.1(b) All professional pyrotechnical devices used for public display, or special effects, shall be in accordance with the applicable provisions of the State of California Code of Regulations, Title 19 and the applicable sections of the State of California Fire Code. Permits for public display and/or special effects shall be obtained from the City of San Carlos. Application for a use permit shall be submitted to the Fire Department thirty days prior to the event.

Chapter 80, 13-22, Section 27.10 of the Fire Code is hereby amended to read as follows:

Fire sprinkler systems for the protection of laboratory buildings ~~as defined in 1.1.1 through 1.1.3 of NFPA 45~~ shall be designed and installed in accordance with this standard, with a minimum design density of Ordinary Hazard Group II ~~and NFPA 45~~.

Chapter 80, 13D-22, Section 6.2.2(2) of the Fire Code is hereby amended to read as follows:

(2) A stand-alone tank is permitted only if the following conditions are met:

(a) The pump shall be connected to a 220-volt circuit breaker shared with a common household appliance (e.g., range, oven, dryer),

(b) The pump shall be a stainless steel 220-volt pump,

(c) A valve shall be provided to exercise the pump. The discharge of the exercise valve shall drain to the tank, and

(d) A sign shall be provided stating: "Valve must be opened monthly for 5 minutes."

(e) A means for automatically refilling the tank level, so that the tank capacity will meet the required water supply duration in minutes, shall be provided.

(f) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.

(g) Any disconnecting means for the pump shall be approved.

(h) A method for refilling the tank shall be piped to the tank.

(i) A method of seeing the water level in the tank shall be provided without having to open the tank.

(j) The pump shall not be permitted to sit directly on the floor.

(k) A stand-alone tank and pump are only allowed in areas not served by a municipal water system and only by approval of the fire code official.

Chapter 80, 13D-22, Section 8.3.4 of the Fire Code is hereby amended to read as follows:

8.3.4 Sprinklers shall not be required in detached garages, open attached porches with no habitable space above, carports with no habitable space above, and similar structures.

**SECTION 9: 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 10: CEQA.** The adoption of this ordinance is categorically exempt from CEQA pursuant to Section 15061(b) (3), as it is not a project which has the potential for causing a significant effect on the environment.

**SECTION 11: Effective Date.** This Ordinance shall be published Pursuant to Section 36937 of the Government Code of the State of California and shall take affect and be in full force thirty (30) days after its final passage but no sooner than January 1, 2023.

\* \* \* \* \*

I, City Clerk Crystal Mui, hereby certify that the foregoing Ordinance was introduced on the 10th day of October, 2022, and passed and adopted at a regular meeting of the City Council of the City of San Carlos held on the \_\_\_\_ day of \_\_\_\_\_ 2022, by the following vote:

**AYES, COUNCILMEMBERS:** \_\_\_\_\_

**NOES, COUNCILMEMBERS:** \_\_\_\_\_

**ABSENT, COUNCILMEMBERS:** \_\_\_\_\_

\_\_\_\_\_  
**CITY CLERK** of the City of San Carlos

APPROVED:

\_\_\_\_\_  
**MAYOR** of the City of San Carlos