

**INITIAL EXPRESS TERMS
FOR PROPOSED BUILDING STANDARDS
OF THE DIVISION OF THE STATE ARCHITECT-STRUCTURAL SAFETY
(DSA-SS AND DSA-SS/CC)
REGARDING THE 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE,
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11
(DSA-SS AND DSA-SS/CC-XX-22)**

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout and ellipsis.

LEGEND for EXPRESS TERMS (California only codes - Parts 1, 6, 8, 11, 12)

- Existing California amendments appear upright
- Amended or new California amendments appear underlined
- Repealed California language appears ~~upright and in strikeout~~
- Ellipsis (...) indicate existing text remains unchanged

INITIAL EXPRESS TERMS

ITEM 1

Chapter 2 Definitions, Section 202 Definitions

ELECTRIC VEHICLE (EV) CAPABLE SPACE. A vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways, both underground and/or surface mounted, to support EV charging.

ELECTRIC VEHICLE (EV) CHARGER. Off-board charging equipment used to charge an electric vehicle.

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

ELECTRIC VEHICLE CHARGING SPACE (EV SPACE). A space intended for future installation of EV charging equipment and charging of electric vehicles.

ELECTRIC VEHICLE CHARGING STATION (EVCS). One or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles. Electric vehicle charging stations are not considered parking spaces.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the

ungrounded, grounded and equipment grounding conductors and the electric vehicle 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.

LEVEL 1 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. [DSA] A 120 Volt 20-ampere minimum branch circuit and a receptacle.

LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE. [DSA] A 208/240-volt 20-ampere minimum branch circuit and a receptacle.

LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). [DSA] The 208/240 Volt 40-ampere branch circuit, 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.

Notation:

Authority: Education Code 17310

Reference(s): Education Code Sections 17280-17317

ITEM 2

Chapter 3 Green Building, Section 301.4 Mandatory Measures for Public Schools and Community Colleges

301.4.2 Work on an existing site (...)

301.4.2.5 Additions to and alterations of parking facilities shall comply with Section 5.106.12 and Section 5.106.5.6.5.

301.4.2.6 Alterations to and additions of existing buildings shall comply with Section 5.106.5.5.6.

301.4.2.7 Alterations to existing classrooms shall comply with Section 5.506.3

Notation:

Authority: Education Code 17310

Reference(s): Education Code Sections 17280-17317

ITEM 3

Chapter 5 Non-residential Mandatory Measures, Division 5.1 Planning and Design, Section 5.106 Site Development

(...)

5.106.5.3 5.106.5.6 Electric vehicle (EV) charging at Public Schools and Community Colleges. [DSA-SS] ~~Construction to provide e~~Electric vehicle infrastructure and ~~facilitate~~ electric vehicle charging shall comply with Section 5.106.5.36.1 and shall be provided in accordance with regulations in the *California Building Code and the California Electrical Code*.

Exceptions:

1. On a case-by-case basis where ~~the local enforcing agency has determined compliance with this section is~~ has been demonstrated to be not feasible based upon one or more of the following conditions: of the following conditions, and with concurrence by the Division of the State Architect (DSA), compliance with Section 5.106.5.6 shall not be required, ~~where one of the following conditions is demonstrated:~~

- a. Where there is no local utility power supply.
- b. Where the local utility is unable to supply adequate power.
- c. Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project. The installation of EVCS is impracticable.

2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with ~~this code section.~~ Section 5.106.5.6.

~~5.106.5.3.1~~ 5.106.5.6.1 EV capable spaces. EV capable spaces shall be provided in accordance with Table 5.106.5.36.1 and the following requirements:

1. Raceways complying with the *California Electrical Code* and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the EV capable space and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV capable spaces.
2. A service panel or subpanel(s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volts, 40-ampere minimum branch circuits for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as “EV CAPABLE”. The raceway termination location shall be permanently and visibly marked as “EV CAPABLE”.

TABLE ~~5.106.5.3.1~~ 5.106.5.6.1

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF REQUIRED EVCS ²
0-9	0	0
10-25	4	<u>0</u> 1
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF REQUIRED EVCS ²
151-200	35	9
201 and over	20 percent of total ¹	25 percent of EV capable spaces ¹

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

~~5.106.5.3.2~~ **5.106.5.6.2 Electric vehicle charging stations (EVCS).** EVCS shall be provided in the number indicated in Table 5.106.5.35.1. EVCS shall be serviced by Level 2 or Direct Current Fast Charging (DCFC) EVSE, or with EVSE in any combination of Level 2 and the installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces indicated in Table 5.106.5.36.1 by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.5.1 for each EV capable space is accumulatively supplied to the EV charger.

~~5.106.5.3.3.~~ **5.106.5.6.2.1 Use of automatic load management systems (ALMS).** ALMS shall be permitted for EVCS installed in accordance with Section 5.106.5.6.2. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.35.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.6.3 EVCS alternative compliance. In lieu of compliance with Section 5.106.5.6.2, EVCS shall be provided with Level 1, Low Power Level 2, or Level 2, or any combination of Level 1, Low Power Level 2 or Level 2 EVSE such that the total power supplied by the combination of EVSE meets the minimum power indicated in Table 5.106.5.6.3, based on the total number of actual parking spaces in each parking facility.

TABLE 5.106.5.6.3

<u>NUMBER OF PARKING SPACES IN A PARKING FACILITY</u>	<u>MINIMUM TOTAL POWER (KVA) REQUIRED FOR EVCS</u>
<u>0-9</u>	<u>0</u>
<u>10-25</u>	<u>8</u>
<u>26-50</u>	<u>16</u>
<u>51-75</u>	<u>24</u>
<u>76-100</u>	<u>31</u>

<u>NUMBER OF PARKING SPACES IN A PARKING FACILITY</u>	<u>MINIMUM TOTAL POWER (KVA) REQUIRED FOR EVCS</u>
<u>101-150</u>	<u>47</u>
<u>151-200</u>	<u>70</u>
<u>201 and over</u>	<u>Total required KVA=P×.05×9.6 Where P=Parking spaces in facility</u>

5.106.5.6.4 EVCS for alterations of or additions to existing parking facilities.[A]

Alterations of or additions to existing parking facilities shall provide EVCS in compliance with Section 5.106.6.5. The installation of infrastructure only for EV capable spaces provided without EVSE required by Table 5.106.5.6.1 shall not be required for alterations of and additions to existing parking facilities.

5.106.5.6.4.1 Alterations of and additions to parking facilities. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or minimum power indicated in Table 5.106.5.6.3 when the scope of work includes an increase in power supply to an electric panel serving light fixtures illuminating the parking area or when parking spaces are added to an existing parking facility. The number of required EVCS shall be based on the total number of existing and new parking spaces in the parking facility.

5.106.5.6.4.2 Alterations consisting of the installation of photovoltaic systems. EVCS shall be provided in accordance with the number indicated in Table 5.106.5.6.1 or maximum power indicated in Table 5.106.5.6.3 when a new photovoltaic system is installed in an existing parking facility.

5.106.5.5.5 Requirement to install EVCS. [A] EVSE shall be provided in all existing EV capable spaces to create EVCS when a project is required by *California Administrative Code* Section 4-309 to be submitted for plan approval to the Division of the State Architect.

When additional spaces are added to existing parking facilities they shall meet the requirements of new parking facilities found in 5.106.5.6.1. Existing EV capable space infrastructure can be used to meet this requirement.

Exception: Projects consisting of accessibility improvements only are not required to comply with Section 5.106.5.6.5.

5.106.5.6.6 Accessible EVCS. When EVSE is installed, accessible EVCS shall be provided in accordance with the *California Building Code*, Chapter 11B]

Notation:

Authority: Education Code 17310

Reference(s): Education Code Sections 17280-17317