# FINAL EXPRESS TERMS FOR PROPOSED BUILDING STANDARDS OF THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT REGARDING THE 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11 (HCD 04/22)

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

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* Repealed California language appears ~~upright and in strikeout~~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

## FINAL EXPRESS TERMS

### ITEM 1 Chapter 2 Definitions: HCD proposes to continue adoption of this section with amendments as follows:

**SECTION 201  
GENERAL**

**201.4 Terms not defined**. Where terms are not defined as specified in this section, such terms shall have ordinarily accepted meanings such as the context implies. (No change to existing text).

**SECTION 202  
DEFINITIONS**

**AUTOMATIC LOAD MANAGEMENT SYSTEM (ALMS).** [BSC-CG, DSA-SS and HCD]A system designed to manage load across one or more electric vehicle supply equipment (EVSE) to share electrical capacity and/or automatically manage power at each connection point. (No change to existing text).

…

**ELECTRIC VEHICLE (EV).** [BSC-CG, HCD] An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats and the like, are not included. (No change to existing text.)

**ELECTRIC VEHICLE (EV) CAPABLE SPACE**. [BSC-CG, DSA-SS and HCD]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. (No change to existing text.)

**ELECTRIC VEHICLE (EV) CHARGER.** [HCD]Off-board charging equipment used to charge an electric vehicle. (No change to existing text.)

**ELECTRIC VEHICLE CHARGING SPACE (EV SPACE).** [HCD] A space intended for future installation of EV charging equipment and charging of electric vehicles. (No change to existing text.)

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

**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. (No change to existing text.)

**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** [HCD]The conductors, including the ungrounded, grounded andequipment grounding conductors and the electric vehicle connectors,attachment plugs, personnel protection system, and all other fittings, devices,power outlets, or apparatus installed specifically for the purposeof transferring energy between the premises wiring andthe electric vehicle.

…

**LEVEL 2 ELECTRIC VEHICLE SUPPLY EQUIPMENT ~~(EVSE)~~.** [HCD] 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.

**LEVEL 2 ELECTRIC VEHICLE (EV) CHARGER.** [HCD] A 208/240-volt 30-ampere minimum electric vehicle charger connected to the premises electrical system capable of charging electric vehicles.

**LOW POWER LEVEL 2 ELECTRIC VEHICLE (EV) CHARGING RECEPTACLE.** [HCD] A 208/240-volt 20-ampere minimum branch circuit and a receptacle ~~for use by an EV driver to charge their electric vehicle or hybrid electric vehicle~~.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 2 Chapter 4 Residential Mandatory Measures, Section 4.106.4 Electric vehicle (EV) charging for new construction. HCD proposes to continue adoption of the above referenced section with amendments as follows:

**4.106.4 Electric vehicle (EV) charging for new construction.** New construction shall comply with Section 4.106.4.1 or 4.106.4.2 ~~to facilitate future installation and use of EV chargers~~. Electric vehicle supply equipment (EVSE) shall ~~be installed in accordance~~ comply with the *California Electrical Code*~~, Article 625~~.

**Exceptions:** (No change to existing text.)

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 3 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. HCD proposes to continue adoption of the above referenced section with amendments as follows:

**4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.** When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Section~~s~~ ~~4.106.4.2.1 and~~ 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as an ~~future~~ EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; Government Code Sections 12955, 12955.1; and Vehicle Code Section 22511.2.

### ITEM 4 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms. HCD proposes to repeal text from the above referenced section as follows:

**~~4.106.4.2.1 Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms~~**~~.~~ ~~The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.~~ **4.106.4.2.1 Reserved.**

1. **~~EV Capable~~**~~. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. 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.~~

~~The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the~~ *~~California Electrical Code~~*~~.~~

**~~Exceptions:~~**

1. ~~When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.~~
2. ~~When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.~~

**~~Notes:~~**

1. ~~Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging.~~
2. ~~There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.~~
3. **~~EV Ready.~~** ~~Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.~~

**~~Exception:~~** ~~Areas of parking facilities served by parking lifts.~~

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955, 12955.1.

### ITEM 5 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms. CD proposes to continue adoption of the above referenced section with amendments as follows:

**4.106.4.2.2 Multifamily dwellings~~development projects~~, ~~with 20 or more dwelling units,~~ hotels and motels. ~~with 20 or more sleeping units or guest rooms.~~** ~~The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.~~

1. **~~EV Capable~~**~~. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. 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.~~

~~The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the~~ *~~California Electrical Code.~~*

**~~Exception:~~** ~~When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.~~

**~~Notes:~~**

1. ~~Construction documents shall show locations of future EV spaces.~~
2. ~~There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.~~
3. 1. **EV Ready Parking Spaces with Receptacles.**
   1. **Hotels and Motels.** ~~Twenty-five (25)~~ Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
   2. **Multifamily Parking Facilities.** ~~For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.~~ Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided but need not exceed forty (40) percent of the total number of assigned parking spaces provided on the site.

**Exception:** Areas of parking facilities served by parking lifts~~.~~, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

* 1. **Receptacle Power Source.** EV charging receptacles in multifamily parking facilities shall be provided with a dedicated branch circuit connected to the dwelling unit’s electrical panel, unless determined as infeasible by the project builder or designer and subject to concurrence of the local enforcing agency.

**Exception:** Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

* 1. **Receptacle Configurations.** 208/240V EV charging receptacles shall comply with one of the following configurations:
     1. For 20- ampere receptacles, NEMA 6-20R
     2. For 30- ampere receptacles, NEMA 14-30R
     3. For 50- ampere receptacles, NEMA 14-50R

1. 2. **EV Ready Parking Spaces with EV Chargers.**
   1. **Hotels and Motels.** ~~Five (5)~~ Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 ~~EVSE~~ EV chargers. ~~Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.~~ At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.
   2. **Multifamily Parking Facilities.** Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in common use or unassigned parking areas and shall be available for use by all residents or guests.

~~When~~Where low power Level 2 EV charging receptacles or Level 2 ~~EVSE~~ EV chargers are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed ~~EVSE~~ EV chargers shall have a capacity of not less than 30 amperes. ~~ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.~~

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 6 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2.1 Electric vehicle charging stations (EVCS). HCD proposes to continue adoption of the above referenced section with amendments as follows:

**4.106.4.2.2.1 Electric vehicle charging stations (EVCS).** Electric vehicle charging stations required by Section 4.106.4.2.2~~.1.2~~, Item ~~3~~2, with EV chargers installed shall comply with Section 4.106.4.2.2.1.1.

**Exception:** (No change to existing text)

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; Government Code Sections 12955 and 12955.1.

### ITEM 7 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2.1.1 Location. HCD proposes to repeal the above referenced section as follows and move existing text into Item 8:

**~~4.106.4.2.2.1.1 Location.~~** ~~EVCS shall comply with at least one of the following options:~~

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

**~~Exception:~~** ~~Electric vehicle charging stations designed and constructed in compliance with the~~ *~~California Building Code~~*~~, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.~~

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

Reference(s): Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955.1.

### ITEM 8 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions. HCD proposes to continue adoption of the above referenced section as retitled, renumbered and incorporating text from existing Section 4.106.4.2.2.1.1 as follows:

**4.106.4.2.2.1.~~2~~1 Electric vehicle charging stations (EVCS) spaces with EV chargers installed; dimensions and location.** ~~The~~ ~~charging~~ EVCS spaces shall be designed to comply with the following:

1. The minimum length of each EVCS space shall be 18 feet (5486 mm).
2. The minimum width of each EVCS space shall be 9 feet (2743 mm).
3. One in every 25 ~~charging~~ EVCS spaces, but not less than one, shall also have an 8-foot (2438 mm) wide aisle. A 5-foot (1524 mm) wide minimum aisle shall be

permitted provided the minimum width of the EVCS space is 12 feet (3658 mm). ~~a.~~ Surface slope for this EVCS space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction. These EVCS spaces shall also comply with at least one of the following:

* 1. The EVCS 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 EVCS space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.

**Exception:** Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955, 12955.1.

### ITEM 9 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.2.1.3 Accessible EV spaces. HCD proposes to continue adoption of the above referenced section as renumbered and with amendments as follows:

**4.106.4.2.2.1.~~3~~2 Accessible ~~EV~~ electric vehicle charging station spaces.** In addition to the requirements in Section~~s~~ 4.106.4.2.2.1.1 ~~and 4.106.4.2.2.1.2~~, all ~~EVSE~~ EV chargers, ~~when~~where installed, shall comply with the accessibility provisions for EV chargers in the *California Building Code*, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with *California Building Code*, Chapter 11A, Section 1109A.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

Reference(s): Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955, 12955.1.

### ITEM 10 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.3 EV space requirements. HCD proposes to repeal text from the above referenced section as follows:

**4.106.4.2.3 ~~EV space requirements~~ Reserved.**

1. **~~Single EV space required.~~** ~~Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.~~

**~~Exception:~~** ~~A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the~~ *~~California Electrical Code~~*~~.~~

1. **~~Multiple EV spaces required.~~** ~~Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.~~

**~~Exception:~~** ~~A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the~~ *~~California Electrical Code~~*~~.~~

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 11 Chapter 4 Residential Mandatory Measures, Section 4.106.4.2.4 Identification. HCD proposes to repeal text from the above referenced section as follows:

**4.106.4.2.4 ~~Identification~~ Reserved.** ~~The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE” in accordance with the~~ *~~California Electrical Code.~~*

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 12 Chapter 4 Residential Mandatory Measures, Section 4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings. HCD proposes to continue adoption of the above referenced section with amendments as follows:

**4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.** ~~When~~ Where 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 (10) percent of the total number of parking spaces added or altered shall be ~~electric vehicle charging spaces (~~EV capablespaces~~) capable of supporting~~ to support future Level 2 ~~EVSE~~ electric vehicle supply equipment. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as “EV CAPABLE.”

**Notes:**

* 1. Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging.
  2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 13 Appendix A4 Residential Voluntary Measures, Section A4.106.8 Electric vehicle (EV) charging for new construction. HCD proposes to continue adoption of the above referenced section with amendments as follows:

**A4.106.8 Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections A4.106.8.1~~,~~ or A4.106.8.2 ~~or A4.106.8.3~~, to facilitate ~~future~~ the installation and use of ~~electric vehicle chargers~~ EV ready spaces. Electric vehicle supply equipment (EVSE) shall comply ~~be installed in accordance~~ with the *California Electrical Code*~~, Article 625~~.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 14 Appendix A4 Residential Voluntary Measures, Section A4.106.8.2 New multifamily development projects and hotels and motels. HCD proposes to continue adoption of the above referenced section with amendments as follows:

**A4.106.8.2 New multifamily ~~development projects and~~ dwellings, hotels and motels.** New multifamily ~~development projects and~~ dwellings, hotels and motels shall meet the following requirements.

**A4.106.8.2.1 New multifamily ~~development projects, and~~ dwellings, hotels and motels.**

**~~Tier 1.~~**

**~~EV Ready.~~** ~~Thirty-five (35) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.~~

**~~Exception:~~** ~~Areas of parking facilities served by parking lifts.~~

**~~EV Chargers for projects with 20 or more dwelling units, sleeping units or guest rooms.~~** ~~Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.~~

**~~Tier 2.~~**

**~~EV Ready.~~** ~~Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.~~

**~~Exception:~~** ~~Areas of parking facilities served by parking lifts.~~

**~~EV Chargers for projects with 20 or more dwelling units, sleeping units or guest rooms.~~** ~~Fifteen (15) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.~~

**Tier 1.** Tier 1 consists of Option A and Option B. One or both may be adopted as voluntary measures.

**Option A for New multifamily dwellings, hotels and motels.**

* + - 1. **EV Ready Parking Spaces with Receptacles.**
  1. **Hotels and Motels.** Fifty (50) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
  2. **Multifamily Parking Facilities.** Fifty (50) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided but need not exceed fifty (50) percent of the total number of assigned parking spaces provided on the site.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Hotels and motels may substitute Level 2 EV chargers for some or all of the required EV charging receptacles. Where Level 2 EV chargers are installed in place of low power Level 2 receptacles, at least fifty (50) percent of the installed EV chargers shall be equipped with J1772 connectors.
   * + 1. **EV** **Ready Parking Spaces with EV Chargers.**
          1. **Hotels and Motels.** Fifteen (15) percent of the total number of parking spaces for hotels and motels shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.
          2. **Multifamily Parking Facilities.** Fifteen (15) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in common use or unassigned parking areas and shall be available for use by all residents or guests.

**Exception:** Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

**Option B Multifamily dwellings.**

1. **EV Ready Parking Spaces with Receptacles.** For multifamily parking facilities, install low power Level 2 EV charging receptacles in at least one parking space for each dwelling unit with assigned parking.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where the number of parking spaces available for residents is less than the total number of dwelling units.
3. **EV Ready Parking Spaces with EV Chargers.** Ten (10) percent, but not less than one, of common use parking spaces shall be equipped with Level 2 EV chargers for use by all residents or guests. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

**Tier 2.** Tier 2 consists of Option A and Option B. One or both may be adopted as voluntary measures.

**Option A for New multifamily dwellings, hotels and motels.**

1. **EV Ready Parking Spaces with Receptacles.**
2. **Hotels and Motels.** Fifty-five (55) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.
3. **Multifamily Parking Facilities.** Fifty-five (55) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided, but need not exceed fifty-five (55) percent of the total number of assigned parking spaces provided on the site.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Hotels and motels may install Level 2 EV chargers instead of all or portions of the required percentage of low power Level 2 receptacles for EV charging. Where Level 2 EV chargers are installed in place of low power Level 2 receptacles, at least fifty (50) percent of the installed EV chargers shall be equipped with J1772 connectors.
3. **EV Ready Parking Spaces with EV Chargers.**
   * + - 1. **Hotels and Motels.** Twenty (20)percent of the total number of parking spaces for hotels and motels shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.
         2. **Multifamily Parking Facilities.** Twenty (20) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in the common use or unassigned parking areas and shall be available for use by all residents or guests.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

**Option B Multifamily Developments.**

1. **EV Ready Parking Spaces with Receptacles.** Install one low power Level 2 EV charging receptacle for each parking space available for use by residents.

**Exception:** Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.

1. **EV Ready Parking Spaces with EV Chargers.** Twenty (20) percent of parking available for nonresidents or guests shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking is provided, EV chargers shall be located in the common use parking area and shall be available for use by all residents or guests.

**Exceptions:**

1. Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the California Building Code; or parking facilities otherwise incapable of supporting electric vehicle charging.
2. Where no common use parking spaces are provided.

An automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1..

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 15 Appendix A4 Residential Voluntary Measures, Section A4.106.8.2.2 Technical requirements. HCD proposes to continue adoption of the above referenced section with amendments as follows:

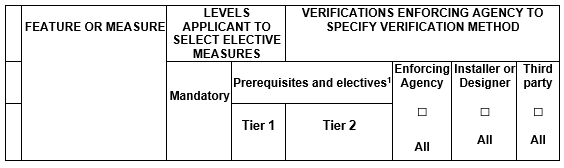
**A4.106.8.2.2 Technical requirements.** The EV spaces required by Section A4.106.8.2 shall be designed and constructed in accordance with Sections 4.106.4.2, ~~4.106.4.2.1 (Notes), 4.106.4.2.2 (Notes),~~ 4.106.4.2.2.1.1, 4.106.4.2.2.1.2, ~~4.106.4.2.2.1.3,~~ ~~4.106.4.2.3,~~ ~~4.106.4.2.4~~ and 4.106.4.2.5.

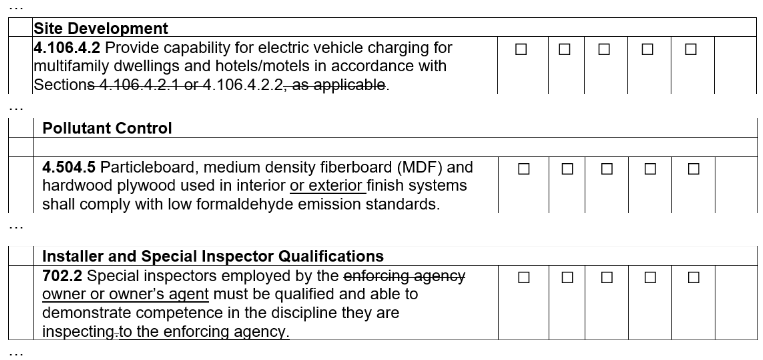
**Notation:**

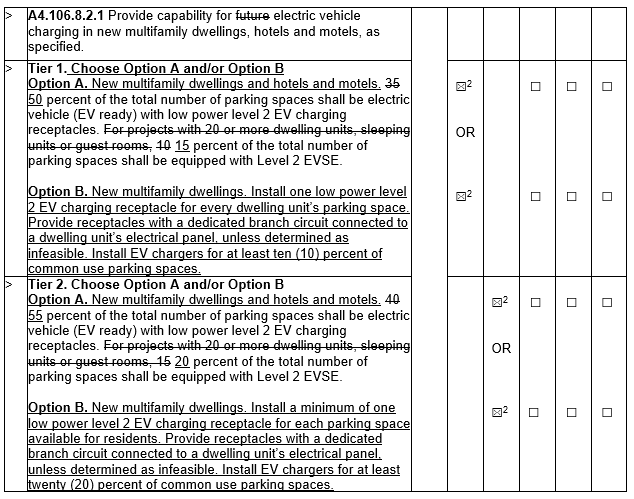
Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955 and 12955.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.

### ITEM 16 Appendix A4 Residential Voluntary Measures, Section A4.602 Residential Occupancies Application Checklist. HCD proposes to continue adoption of the above referenced section with amendments as follows:







**Notation:**

Authority: Health and Safety Code Sections 17040, 17921, 17928, 18938.3, 18941.10, 19984 and 19990; and Government Code Sections 12955, 12955.1 and 12955.1.1.

References: Health and Safety Code Sections 17040, 17042, 17921, 17928, 17958.12, 18938.3, 18941.5, 19990 and 19984; and Government Code Sections 12955 and 12955.1.