Commercial and Multi-Family Residential Electric Vehicle Charging Station

Level 2 chargers that operate at 240 or 208 volts will require electrical permits. For 240 or 208 volt plugin EV chargers, and there is an existing matching 240 or 208 volt receptacle, no permit is required. However, if a new 240 0r 208 volt receptacle is required, or an existing receptacle needs to be changed to accommodate the charger unit plug, electrical permits are required. For permit submittals for level 2 chargers, the following are required:

1. Electrical plans shall be prepared by an engineer or architect licensed in the State of California, or by a licensed electrical contractor, who prepared the plans, and will install the EV chargers and related work.
2. All sheets of plans are to be stamped and signed by the engineer or architect, or signed by the licensed electrical contractor, with the contractor's license number.
3. Provide site plans showing location of exterior EV chargers and/or floor plans showing the location of interior EV chargers.
4. Show the amperage and location of the electrical service, the proposed location of the electric vehicle charger, and the amperage and location of any sub-panels serving the EV chargers.
5. Show that the EV vehicle charging equipment is protected from vehicular damage.
6. Electric vehicle chargers shall be labeled by UL or approved testing agency.
7. Note on the plans: "Electric vehicle charger installation instructions shall be available at the job site for building department inspections."
8. Show the disconnecting means for hardwired chargers, or the NEMA designation and amperage rating for 240 or 208 volt outlets.
9. EV chargers with over 60 amps of supply current shall be hardwired, with a locking disconnecting means per CEC 625.42
10. Provide manufacture's cut sheets for the EV charger. Verify electrical demands and voltage.
11. Provide panel schedules and load calculations for panels with new EV charger loads. Include the EV chargers as a continuous load.
12. If new sub-panels are installed, provide a single line diagram.
13. Show that branch circuits and breakers are sized for 125% of the electrical vehicle charger demands per CEC 625.40. If 240 or 208 volt plugin chargers are used, the 240 or 208 volt receptacle needs to be sized for sized for the 125% of the demands.
14. If new feeders are installed, provide voltage drop calculations per the T-24 energy regulations.
15. Provide specifications for the conductors. For exterior or underground locations, conductors must be rated for wet locations per CEC 310.10.
16. Provide specifications for wiring methods.
17. Conductors outside the building construction, must be an approved method for exterior exposure. (EMT, PVC (UV rated if exposed to sunlight) or other approved wiring method.
18. Conductors run underground must use a wiring method approved for burial or underground use.
19. At exterior locations electrical equipment shall be rated for exterior exposure.

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20. For interior EV chargers, indicate if ventilation is or is not required per CEC 625.52. If required, verify/show that mechanical ventilation will be provided.
21. For commercial or public use EV charging stations:
    a. Provide accessible stations per CBC 11B-203.
    b. Show compliance of the accessible charging stations per CBC 812.
    c. Show that the accessible EV charging stations are on an accessible route per CBC 11B-812.5.
    d. Provide designs & details for any upgrades to provide an accessible route per CBC 11B-812.
22. For multi-family housing in buildings or complexes covered by CBC 1101A.1, common use EV chargers shall be accessible, and on an accessible route. CBC 1127A. EV chargers for public use shall comply with the requirements in CBC Chapter 11-B.