An electrical permit is required for an EV charging system installed in the garage, carport, or outdoors. For an over-the-counter permit, provide the following information:

- Type of charging system (level 1, level 2, etc.)
- Size of EVSE electrical circuit (most level 2 chargers requires a 40-amp 2-pole circuit)
- Size of the existing electrical service (to determine if a service upgrade will be required).
- A floor plan / plot plan showing the location of the EVSE.

All electrical materials must be listed by an organization such as UL.

Some electric vehicles include AC-DC conversion equipment in the vehicle, and these plug into standard electrical receptacles that are installed for that purpose. Others have the AC-DC conversion equipment mounted to the wall, and a cord with an Electric Vehicle Connector (J1772 standard) is connected to the vehicle.

- Specify the type of outlet on the plan.
- Provide cut sheets for wall-mounted charging equipment.

Panel upgrades and all electrical wiring shall be in conformance with the California Electrical code. An individual (dedicated) circuit is required for the EV charging system (210.17).

New 1- & 2-family dwellings and townhouses require an “EV CAPABLE” box in the area where a future EV charger might be installed. This box must be supplied by a continuous 1 in. raceway back to an electrical panel. The electrical system must include at least 40 amperes of capacity for EV and space for the breaker (Green Building Standards Code 4.106.4.1.1).