



Electric Vehicle Charging Devices

Development Services Department
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For Single-Family Homes

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Permits are required for electric vehicle charging devices installed in a home. The City of Hayward strongly recommends that the homeowner hire a licensed electrical contractor* to provide a preliminary consultation and perform the installation. Before the permit is applied for, it is necessary to evaluate the home's electrical service to verify if it will be adequate for the new demands of the charging device. This is confirmed by doing what is called a "load calculation". In some situations, the service panel will need to be upgraded to accommodate the new charger. An upgraded service panel will require an additional permit.

For in-depth information related to EV charging and other zero emission vehicles, the state of California provides a guidebook that can be found here:

https://www.opr.ca.gov/docs/ZEV_Guidebook.pdf

**Electrical contractors carry a State of California contractor's license with the designation "C-10", as opposed to general contractors that carry a "B" license. General contractors cannot pull permits for work that is primarily electrical unless there are unrelated trades in the project with carpentry as the primary trade.*

- STEP 1: Determine the type of charging device that you plan to install.** You may choose a **Level 1** charger that is 120 volts alternating current or a **Level 2** charger that is 240 volts alternating current. A level 1 charger uses regular household voltage and can typically charge a vehicle in 10 hours. A level 2 charger uses the voltage that is used by a household clothes dryer and can charge a car in 3 to 8 hours, depending on the vehicle.

- STEP 2: Visit the Permit Center at City Hall to obtain your permit.** Permits for Residential EV charging systems are issued "over the counter". This means that once the application is complete, you will be issued a permit the same day. In the permit application description, it is important to note the type of charger (level 1 or level 2). The fees for a residential EV charger are approximately **\$235**. As an alternative to visiting the Permit Center at City Hall, customers can obtain their permits by fax (or email). This process requires pre-registration in person for the first permit. The fax-in/email program is recommended for customers that pull multiple permits a year.

- STEP 3: Schedule an inspection and have the following documents on site for review:**
 - UL (Underwriters Laboratory) listing number.** Provide the UL listing number of the device. UL is the most common, but other nationally recognized listings are acceptable.

- Manufacturer’s installation instructions / product info.** This is often referred to as a “cut sheet”. The contractor must follow the installation instructions and the inspector may need to review these documents.

 - Rating of the existing service panel for the home.** If the rating of the panel is 125 amperes or less, provide load calculations per California Electrical Code Article 220. This information will be reviewed by the inspector on site. If some information is missing or if the service is not adequate for the installation of the device, additional permits may be required for associated electrical work.

 - Label at Service Panel.** A label stating “EV Capable” shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway terminal point.
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- STEP 4: Approved Final Inspection – The system is ready to use!** Only after the Building Inspector has signed off the work for compliance with code is the project considered complete.