

 <b>Building Division</b>	<b>Submittal Requirements Electric Vehicle Supply Equipment (EVSE)</b>  City of Palo Alto Building Inspection Division 285 Hamilton Ave. Inspection Request: 650 329-2496	Revision Date: 06/10/13
		<b>General Requirements for: Commercial</b>
		Codes Enforced: 2010 CEC/2008 NEC
The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.		

The EVSE must be listed by a nationally recognized testing laboratory (NRTL). A third party field evaluation would be required for any EVSEs not listed. Submit four sets of drawings for commercial to the building department. Building, Planning and Fire review is required.

• **EVSE applications are a separate submittal/permit.**

- Complete the City of Palo Alto Electric Utility EVSE application form. (1 copy)
- Complete manufacturer's installation instructions must accompany each submittal. (1 copy)
- Plan size shall be 18" x 24" minimum and a maximum of 30" x 42". Font size shall be a minimum of #10 for viewing and micro filming.
- Provide a job specific site plan showing the location of the building, street, all EVSEs, bollards, electric service, conduit location, disconnects and the existing premise wiring electrode. Show all landscaping including trees, height and dimensions of the EVSE and sidewalk clearances when installed in the sidewalk. (4 copies)
- Provide elevation photos of the proposed ESVE location. Include the proposed height of the EVSE.
- A disconnect is required at 10' from each charging station location. A phenolic plaque with red background and white letter stating "Emergency Power Off – Electric Vehicle Charging Station" must be installed on each disconnect.
- Include load calculations per NEC Article 220. The EVSE must be calculated at 125%. (3 copies)
- Provide a detail(s) on the plans for the attachment/foundation detail for post/bollard installations. (3 copies). For equipment over #400, provide details and calculations from a licensed structural engineer or civil engineer.

**A three line diagram must be included in the submittal with the following information: (3 copies)**

- Wire size, insulation type, distance of the wires from the service point to the EVSEs. (include the equipment grounding conductor EGC)
- Size of the over current device (e.g. circuit breaker).
- Conduit size, type and location.
- The manufacturer and model of the Electric Vehicle Service Equipment.
- Utility voltage.
- The size of the main electric panel, distribution panels (sub panels) and disconnects.

**THIS DOCUMENT PROVIDES INFORMATION FOR NEW EVSE INSTALLATIONS. IF THE ELECTRIC SERVICE MAIN PANEL WILL BE UPGRADED, PLEASE COMPLETE THE UTILITY SERVICE APPLICATION AND SUBMIT WITH THIS DOCUMENT.**

**Installing an Electric Vehicle Supply Equipment (EVSE)** will require changes to building wiring and may also require upgrading the electric service main panel to meet the needs of this specialized equipment. Before installing an EVSE and associated infrastructure, talk to your EV manufacturer for information about what you need to charge your vehicle and what regulatory requirements there might be.

**When installing your EVSE**, be sure to use a licensed electrical contractor whose license is current for electrical work. The contractor should also follow the guidelines of the manufacturer and the requirements of City of Palo Alto Building Codes.

**A permit from the City is required before installing charging equipment.** Submit building and electrical plans for the planned installation with your permit application.

**Why is the Electric Utility concerned about your EVSE installation?**

Though an individual EVSE may have a negligible impact on the utility electric system, the combined effect of several chargers in the same area could result in overloading the utility lines and transformers. It is crucial the City of Palo Alto Utilities is notified of any charging station installations to ensure that utility electrical system remains adequately sized to maintain high levels of service reliability.

The Utilities department needs information on location (address), type of charging equipment, charging level (*as defined by NEC, Article 625, see Table 1 below*), and number of EVSEs being installed.

Level	Voltage (V)	Maximum Current (A)	Frequency (Hz)	Power (kVA)
1	120	12	60	1.4
2	208 / 240	32	60	6.7 / 7.8
3	High Power, High Speed Charging – Defined by Manufacturer's Requirements			

**Table 1 – Electric Vehicle Charging Levels, National Electrical Code, Article 625**

**Please provide the following information and submit with copies of any documentation from the charger manufacturer (cut sheets, installation instructions, specifications, etc.).**

<b>Project Address:</b>	<b>Building Department Permit #</b>
<b>Contact Person:</b>	<b>Phone:</b>
	<b>E-mail:</b>

<b>Number of EVSEs being installed:</b>	<b>Number of Electric Vehicles:</b>
<b>Is the Charger Level Type 1, 2 or 3 (per Table 1)? :</b>	

**Level 3 chargers complete the following table:**

<b>Voltage (V)</b>	
<b>Current (A)</b>	
<b>Power (kVA):</b>	

**CPAU Engineering Review (Required for level 3 EVSEs) - A copy of this approved form must be submitted to the City of Palo Alto Building department.**

<b>Approved By:</b>	<b>Date:</b>
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EVES mounted on metal post minimum specifications. See illustration below.

