Electric Vehicle Service Equipment Checklist

Handout #125

Permitting Worksheet: Electric Vehicle Service Equipment For Existing Residential and Non-Residential Building

Please complete the following information related to permitting and installation of electric vehicle chargers/ electric vehicle service equipment (EVCS / EVSE) as a supplement to the application for a electrical and/or building permit. This checklist contains the technical aspects of EVSE installations and is intended to help expedite permitting and use for electric vehicle charging.

Project Name:	Building Permit No.:
Project Address:	
Applicant Name:	Applicant Phone Number & Email:
Contractor Name:	Contractor Phone Number & Email:
Owner Name:	Owner Phone Number & Email:

☐ Single-Family	☐ Multi-Family (Condominium)	☐ Mixed-Use
☐ Multi-Family (Apartment)	☐ Commercial (Single Business)	☐ Public Right-of-Way
	☐ Commercial (Multi-Business)	

Location and Number of EVSE Proposed:

☐ Garage: ☐ Parking Level(s): ☐ Parking Lot: ☐ Street Curb:

Type of Charging Station(s)

☐ Level 1 Charging (AC), 120 V; 1.4 kW to 1.9 kW ☐ Level 2 Charging (AC); 240V, 3.7 kW to 17.2 kW

☐ DC Fast Charging (DCFC/L3); 480V, 22 kW to 350 kW

Maximum Rating (Nameplate) of EV Charging System Equipment =_____ Voltage EVCS =_____

Manufacturer of EVCS: _____

System Voltage:

☐120/240V, 1ϕ, 3W; ☐120/280V, 3ϕ, 4W ☐120/240V, 3ϕ, 4W ☐270/480V, 3ϕ, 4W ☐Other:_____

Rating of Existing Main Electrical Service Equipment=_____Amperes

Rating of Panel Supplying EVCS (if not directly from main panel): =_____Amperes

Rating of Circuit for EVCS: _____Amperes / _____Poles

A.I.C. Rating of EVCS Circuit Breaker (if not single family, 400A) = _____A.I.C.

Specify Either Connected, Calculated or Documented Demand Load of Existing Panel:

- Connected Load of Existing Panel Supplying EVSE = _____Amps
- Calculated Load of Existing Panel Supplying EVSE = _____Amps
- Demand of Load of Existing Panel or Service Supplying EVSE = _____Amps
  (Provide Demand Load Reading from Electric Utility)

Total Load (Existing plus EVSE Load) = _____Amps

For Single Family Dwellings, if Existing Load is not known by any of the above methods, then the Calculated Load may be estimated using the "Single-Family Residential Permitting Application Example" in the Governor's Office of Planning and Research "Zero Emission Vehicles in California: Community Readiness Guidebook" https://www.opr.ca.gov

EVCS Rating:_____Amps x 1.25 =_____Amps = Minimum Ampacity of EVCS Conductor = #_____ AWG

For Single-Family: Size of Existing Service Conductors = #_____ AWG or kcmil
OR
Size of Existing Feed Conductor Supplying EVCS Panel = #_____ AWG or kcmil
OR

☐Verify with Inspector in Field

NOTE: A charging station may include essential signage, parking lot striping, wheel stops, bollards and other similar directional and safety improvements as necessary for safe operation of EVCS equipment. Ancillary features proposed beyond those necessary for safe operation of EVCS equipment designed in compliance with Article 625 of the California Electrical Code, such as fences, lighting, canopies, promotional signage, and other similar improvements, may be subject to applicable local zoning and building regulations and review.
The Building Official may require an applicant to apply for a use permit if the Building Official finds, based on substantial evidence, that the electric vehicle charging station could have a specific, adverse impact upon the public health and safety

Construction Drawing Submittal Requirements:	Check
-Cover Sheet/Title Sheet shall include: (1) Scope of Work identifying all work proposed under this permit, (2) Applicable Building Codes, Index of Drawings -Site/Floor Plan shall include: (1) Show full parcel, lot dimensions/property lines, (2) small vicinity map including north arrow, (3) Plan showing location of proposed EVCS, existing and new service panels, and sub-panels, include location of all existing EVCS. -Single-Line Diagram with all the primary and secondary distribution equipment and loads, including feeder identification with conductor and raceway size and type. The sizing, voltage, and type of equipment shall be noted.	☐ ☐ ☐
Single Line Diagram and Panel Schedule. Show size and type of conductors, raceways and circuit breaker(s).	☐
Electrical Service Load Calculation per CEC 220.	☐
EVCS Manufacture installation details, and specifications.	☐

APPLICANT SIGNATURE

I hereby acknowledge that the information presented is a true and correct representation of existing conditions at the job site and that any causes for concern as to life-safety verifications may require further substantiation of information.

Signature Print Name Date