



## PLANNING & DEVELOPMENT SERVICES

# ELECTRIC VEHICLE CHARGING SYSTEM(EVCS) COMMERCIAL/MULTI-FAMILY SUBMITTAL CHECKLIST

**APPLICABLE CODES:** 2022 California Building Standards Code as adopted by PAMC Chapter 15.04 & 16

This submittal checklist outlines the minimum requirements for a complete permit submission. Each project is unique and additional requirements may be needed. All applications, plans, and supporting documents are to be submitted electronically through Accela Citizen Access (ACA). Further instructions can be found on our website.

**Please submit ONLY TWO TOTAL FILES in PDF FORMAT.** Files are titled C#\_"PROJECT ADDRESS"\_DOCS, C#\_"PROJECT ADDRESS"\_PLAN, etc. C# refers to the cycle number of review. Initial submittals are C1, for Cycle 1.

### PLAN File ( titled C#\_"Project Street Address"\_PLAN.pdf")

- Cover Sheet/Title Page
- Site Plan
- Mechanical ventilation if installed in an enclosed space
- Electrical Sheets
- [T-1 Protection Sheet](#)

### DOCS File ( titled C#\_"Project Street Address"\_DOCS.pdf")

- EVCS manufacturer's specs and installation guidelines
- [EVCS Information for Utilities Dept.](#)

## INSPECTION INFO

Printed large format job copy of the approved plans, printed permit card, and installation instructions shall be available on site at time of inspection.

### Required Inspections - others may be required

- 720 EVCS Final
- 990 Fire Inspection

### Inspection Guidelines

- [EVCS Commercial & Multi-family](#)



**PLANNING & DEVELOPMENT SERVICES**

## **EXPANDED SUBMITTAL CHECKLIST: ELECTRIC VEHICLE CHARGING SYSTEM (EVSE) COMMERCIAL AND MULTI-FAMILY**

**APPLICABLE CODES:** 2022 California Building Standards Code as adopted by PAMC Chapter 15.04 & 16

This submittal checklist outlines the minimum requirements for a complete permit submission. Since each project is unique, additional requirements may be needed. All applications, plans, and supporting documents are to be submitted electronically through our Online Permitting System (OPS).

Please visit our [WEBSITE](#) for instructions on how to submit your Building permit application and additional submittal resources.

### **REQUIRED PLANS / DOCUMENTATION**

#### **Pre-submittal Fire Inspections are recommended**

Applicants may schedule a Fire inspection by contacting [fire@cityofpaloalto.org](mailto:fire@cityofpaloalto.org) or by calling 650-329-2184, Option 1. The lead time for scheduling is typically within a week. A City Fire Inspector must field verify your proposed EPO (Emergency Power Off) location before a Building permit can be issued, therefore applicants are encouraged to schedule this inspection early. It can be scheduled either prior to permit application submittal or after submittal but prior to permit issuance. A site map will be required for the field verification which will be signed off by the Fire inspector at the time of the field verification. This sign-off will need to be submitted as part of the permit application.

☐ **Completed Applications (APPLY.pdf)**

- [Utility Service Application Packet](#) (required only if upgrading the main panel and/or transformer)

☐ **Plans (PLAN.pdf)**

- Electronic PDF of Plans need to be signed by the designer/person who prepared them
- Use (E) for Existing and (N) for New annotation on the plans/details/elevations/sections.

1. Cover Sheet/Title Page

- Contact information of all the design professionals must be included
- Scope of work must be included
- If known, include the applicable building and electrical codes

## 2. Site Plan

- Showing all on-site buildings
- Show existing and new parking layout, including dimensions and van/regular accessible and EV regular and accessible spaces (PAMC 18.54.020)
- Parking table listing existing and proposed parking counts
- Show location and type of charging system and mounting/foundation of EVSE
- Show location of existing and proposed electrical power equipment (i.e., switchgear, main switchboard (MSB), transformer) and electrical panel supplying power to EVSE
- Trenching locations in compliance with minimum cover requirements for wiring methods or circuits (CEC 300.5, T300.5)
- Show the location of each tree 4" in diameter or greater (measured at 54" above ground) within 30 feet of the scope of work. Plans must include tree species, measured trunk DBH, and tree canopy dripline.
  - Protected trees located within 30 feet of the scope of work shall be protected with Type III fencing as shown on the [City's T-1 Sheet](#).
- Show location of existing and proposed bollards. Bollards or other means of protection are required as a means of vehicle protection when the EVSE is located less than 48 inches above the finished floor. Measurement shall be taken from the ground to the bottom of the EVSE as set forth in CEC 110.27(B).
  - Bollards shall be 48" high and have a 4" reflective red stripe at the top.
  - Bollards cannot interfere in the required parking stall measurements
    - Non-ADA: 8.5' wide by 17.5' long;
    - ADA Van: 12' wide by 18' long; and
    - ADA standard: 9' wide by 18' long,
    - minor exceptions of 18 inches are allowed per PAMC 18.54.020
- Show compliance with the design requirements set forth in CGBSC 4.106.4 & 5.106.5.3 and PAMC 16.14.160 & 16.14.400. These requirements are only applicable to "public use" (available to the public) parking spaces, see CBC Table 11B-228.3. Currently, there is no accessibility requirement for Multi-Family EVSE. Accessibility space shall comply with one of the following:
  - EV space(s) shall be located adjacent to an accessible parking space that complies with CBC Chapter 11-B, to allow use of the EV charger from the accessible parking space.
  - EV space(s) shall be located on an accessible route, as defined by CBC Chapter 2, to the building. Exception: EVCS designed and constructed in compliance with CBC Chapter 11-B.
  - Identify the correct number and type of accessible EVSE stalls required in accordance with CBC Table 11B-228.3.2.1
  - Detail compliance with the accessible EVSE features required by CBC 11B-812 and Figure 11B-812.9
  - Show an accessible route from the accessible EVSE to an accessible building entrance per CBC 11B-812.5.1

## 3. Mechanical Ventilation

- The ventilation requirement for charging an electric vehicle in an indoor [enclosed](#) space as determined by California Electrical Code [625.52\(A\)](#) or (B), directs the applicant to check with the equipment (EVCS) listing whether ventilation is required or not when installed indoor. If ventilation is required, the applicant must provide ventilation per California Mechanical Code and show it in the mechanical drawings submitted as part of the permit application.

#### 4. Electrical Sheets

- Single line diagram
- Show location of existing electrical power equipment (i.e., switchgear, main switchboard, transformer) and electrical panel supplying power to EVSE
- MSB, panel, and other equipment electrical load calculations to accommodate new EVSE
- Verify that the electrical panel accommodates the new EVSE load and include a picture of any existing panels
- Electrical wiring and feeder requirements in compliance with CEC 225
- Charging equipment shall be UL rated or equivalent, provide cut sheets
- A master Emergency Power Off (EPO) switch for EV chargers is required that will shut off all the EVSEs (Palo Alto Municipal Code 15.04.260 Section 603.12 Electric vehicle service equipment - car chargers). EPOs are required for any power sources above 120 volts that are being used for EV charging purposes.

Location of the Emergency Power Off (EPO) switch for EV chargers:

- a. EPO shall be field verified by Fire Inspector prior to issuance of building permit
- b. The EPO shall be free standing and located a minimum of 10 ft. away from any vehicle.
- c. EPO shall be mounted 5 ft. (60 inches) off the ground, measured to the center point of the EPO device.
- d. Add a note to site plan stating EPO required to disconnect all EVSEs simultaneously.
- e. New and existing chargers need to be tied into one Master EPO.
- f. Actual location to be field verified by a Fire Inspector before the permit is issued. This can be scheduled either prior to permit application submittal or after submittal but prior to permit issuance. A site map will be required for the field verification which will be signed off by the Fire inspector at the time of the field verification. The approved site map will need to be a sheet in the plan set
- g. To schedule a Fire inspection to field verify the EPO location, applicants may contact [fire@cityofpaloalto.org](mailto:fire@cityofpaloalto.org) or by calling 650-329-2184, Option 1. The lead time for scheduling is typically within a week.
- h. The Fire Inspector will come out a second time to test the EPO and ensure it is operating correctly, after the EPO has been installed. This inspection can be requested through Accela Citizen's Access portal or by calling 650-329-2184, press Option 1 for assistance.
- i. EPO switch must be exterior-rated, if installing outside.
- j. Post EPO sign stating 'Electric Vehicle Charging Emergency Power Off'. Follow PAFD sign standard: <https://www.cityofpaloalto.org/files/assets/public/fire-department/operations/fire-prevention-bureau/sign-standard-updated.pdf>

#### 5. T-1 Tree Protection Sheet

- If this is an EVSE only project, then the Applicant, rather than arborist, may fill out the Tree Disclosure Statement on the T1 Sheet.
  - Applicant must comply with all applicable Urban Forestry Standard Conditions on the T1 Sheet.

#### ☐ **Forms Supporting Documents (DOCS.pdf)**

- EVCS manufacturer's specs and installation guidelines
- [EVCS Information for Utilities Dept.](#)