



## INFORMATION SHEET

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**NUMBER** : E-02  
**DATE** : December 21, 2020  
**CATEGORY** : Electrical Plans – Review and Inspection  
**SUBJECT** : **Electric Vehicle Charging Station Checklist**

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**PURPOSE:** : This Information Sheet provides procedures and an informational checklists regarding applications for permit to install Electric Vehicle Charging Stations in existing off-street parking facilities.

This document does not address new construction or major renovations; for information relating to new construction and major renovations, see Administrative Bulletin 093.

**REFERENCE** : San Francisco Building Code (SFBC) 106A.1.16  
California Government Code, Section 65850.7  
California Building Code (CBC) Chapters 11A and 11B  
SFDBI Administrative Bulletin 093

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## DISCUSSION

Applications for building and electrical permits for installation of EVCS must comply with all applicable codes and standards. This Information Sheet discusses procedures and provides checklists regarding applications for permit to install Electric Vehicle Charging Stations in existing parking facilities, consistent with San Francisco Building Code 106A.1.16.

To encourage the use of electric vehicles, the State of California has declared the installation of electric vehicle charging stations (EVCS) a matter of statewide concern. California Government Code 65850.7 limits review of applications for permit to install EVCS in existing parking areas to a determination on the basis of health and safety.

## LIMITATIONS OF THIS INFORMATION SHEET

This information sheet provides checklists to clarify what documentation is required for installation of EVCS as well as components and equipment necessary to the safety and functionality of EVCS. The process addressed by this Information Sheet is limited to Department of Building Inspection authority to enforce codes for the benefit of safety and health. Where the scope of work for a project may extend beyond installation of EVCS and supporting equipment, the following significant considerations may apply:

- **Public Property – Public Works Review:** California Government Code 65850.7 does not affect the City's obligation to be a steward of public property. The project sponsor is responsible for obtaining all applicable permits from Public Works, and must comply with all applicable codes and laws. Electric vehicle chargers and supporting equipment are not permitted to be installed in the public right of way.
- **Zoning – Planning Department Review:** California Government Code 65850.7 limits review of Permit Applications where the scope of work is strictly limited to installing EVCS serving existing parking areas to health and safety only, so such projects will not be referred to Planning Department for review. However, permit applications that propose any other scope beyond installation of EV charging infrastructure remain subject to Planning Department review. For example, Planning Department review and approval may be required for proposal to install or modify signage other than as specifically required by applicable codes; additions or alterations to a building or parking area; and change of use from private or assigned parking to public parking.
- **Specialized Fire Safety – Fire Department Review:** Plan review by San Francisco Fire Department is not required for installation of EVCS and supporting equipment necessary for EVCS to comply with all applicable codes and standards. Permit applications that propose any other scope of work beyond installation of EV charging infrastructure and supporting equipment may require Fire Department review. For example: the Fire Department will review any application for:
  - Permit to install battery storage exceeding a threshold specified in Fire Code Table 1206.2, such as lithium ion batteries exceeding 20kWh total capacity.
  - Project with total cost of construction of \$50,000 or greater in multifamily buildings of 3 units or greater, to confirm compliance with San Francisco Fire Code Section 1103.7.6.1 requirements for fire alarm systems.

This Information Sheet addresses permits for installation of EVSE in all situations except new construction and major alterations. San Francisco Green Building Code Section 202 defines Newly Constructed buildings as buildings that have never been used or occupied for any purpose. Major Alterations are additions and alterations where interior finishes are removed and significant upgrades to structural and mechanical, electrical, and/or plumbing systems are proposed – where areas of such construction are 25,000 gross square feet or more in Group B, M, or R occupancies of existing buildings. All newly constructed buildings and major alterations are required to provide electrical capacity and infrastructure to facilitate the future installation of EVSE capable of providing charging services to 100% of off-street parking spaces for passenger vehicles and trucks. For additional information about requirements applicable to newly constructed buildings and major alterations, please see Administrative Bulletin 093 – Green Building, and San Francisco Green Building Code Sections 4.103.3.3 and 5.103.3.

**PERMITS REQUIRED FOR EVSE INSTALLATION**

Permit requirements are determined by the scope of work.

Scope of Work	DBI Permit(s) Required
Install a residential electrical vehicle charger utilizing a previously approved receptacle outlet and circuit meeting electric vehicle charger manufacturer specifications <ul style="list-style-type: none"> <li>• 120 VAC receptacle with 20A overcurrent protection and meeting manufacturer specification</li> <li>• 240 VAC receptacle with 40A overcurrent protection and meeting manufacturer specification, whichever is greater</li> </ul>	No permit required (SFBC 106A.1.16)  If there is any question whether an existing circuit meets EVSE manufacturer specifications, consult a licensed electrical contractor prior to installation. It is uncommon for existing circuits to be EV Ready, other than in newly constructed buildings or when a previously installed plug-in charger is replaced.
Install or modify electrical equipment of any sort that is specifically necessary for proposed EVSE to meet all applicable codes	Electrical permit (See CA Electrical Code Section 89 and San Francisco Supplement for details.)
Install or modify ventilation	Mechanical permit (in addition to Electrical permit)
Install battery storage	Mechanical and Building Permit (in addition to Electrical Permit) Systems of 20kW or greater require San Francisco Fire Department Review. (See Fire Code Table 12.06.2 for details.)
Install or modify building components when specifically necessary for proposed EVSE to meet all applicable codes	Building permit (in addition to Electrical permit)
For any parking spaces available to the public (including employee parking and guest parking) installation of EVSE requires review of accessibility provisions of California Building Code 11B, in addition to Americans with Disabilities Act Compliance.	Building permit (in addition to Electrical permit)
Any scope of work beyond what is specifically necessary for installation of proposed EVSE and meeting all applicable codes	Contact DBI Technical Services, or seek all applicable permits as normal.

**PLAN REVIEW**

Upon receipt by DBI of a completed application fulfilling the requirements of Attachment 1: Checklist for permitting electric vehicle service equipment (EVSE), the application will be reviewed.

- Application for electrical trade permit only, submitted by a registered electrical contractor: Instant issuance of a permit.
- Application for building permit specifically for EVSE (and components and equipment necessary to the safety and function of EVSE), with or without modification to public parking: A completed application will be reviewed, and if no deficiencies are identified, permit review will generally be completed within 3 weeks or less.

- Application for building permit entailing additional scope beyond EVSE and equipment necessary to the safety and function of EVSE may require review by other agencies, such as the Fire Department, Planning Department, or other agencies based on proposed scope of work. Such applications will be reviewed as soon as possible.
- Follow up required: A single written response indicating additional information or corrections necessary for approval of permits specifically for EVSE and equipment necessary to the safety and function of EVSE will be issued by the Department of Building Inspection. As noted above, projects entailing additional scope beyond installation of EVSE and equipment necessary to the safety and function of EVSE may require review by other agencies.

**Limited Over The Counter Permit Services**

For the protection of staff and permit applicants in the context of the COVID-19 pandemic, SF DBI has temporarily instituted [Limited Over-The-Counter \(OTC\) Permit Services](#). At the time of writing, a daily schedule has been established to minimize crowding:

Category of Permit Application	OTC Application Hours (Monday to Friday)	Appointment Required?
OTC Without Plans	7:30 to 9:30 am	First come-first served
OTC With Plans – Scope limited to EVSE installation	9:30 to 3:15 pm	First come-first served
OTC With Plans	9:30 to 3:15 pm	Appointment required. Visit <a href="http://sfdbi.org/limitedservices">sfdbi.org/limitedservices</a> to schedule an appointment.

Please see [sfdbi.org/limitedservices](http://sfdbi.org/limitedservices) for details and updates.

Attachment 1 of this Information Sheet will help you understand what category of permit is needed, and what supporting documentation to submit. Permit applications proposing to install EVSE where CBC 11B is applicable require "With Plans" service.

The schedule above may be updated as needed.

**PARKING AND UNIVERSAL ACCESS**

When EVSE are installed, the vehicle stall served by the EVSE is defined by California Building Code Section 202 as an Electric Vehicle Charging Station (EVCS), and the primary purpose of the vehicle stall is considered to be charging electric vehicles. California Building Code Part 2 Chapter 11B and the Americans with Disabilities Act establish requirements to provide accessible EV charging. Chapter 11B sets prescriptive requirements for the quantity and attributes of accessible spaces.

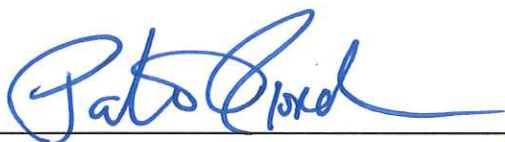
There are two cases where accessible charging is not required:

- EVCS exclusively serve vehicle stalls that are not available to the general public and are exclusively for use by a designated driver or vehicle. For example, spaces designated for public or private fleet vehicles, or an EVCS assigned to a designated parking spot for a specific employee.
- Assigned parking spaces in private or public housing, where EVCS is intended for use by an electric vehicle owner or driver with an assigned parking space.

California Building Code Section 202 defines an Electric Vehicle Charging Station as “not a parking space” for purposes of calculating the quantity of accessible EVCS required. San Francisco Green Building Code Section 202 modifies this definition as follows:

ELECTRIC VEHICLE CHARGING STATION (EVCS). One or more electric vehicle charging spaces served by ... charging equipment allowing charging of electric vehicles. For purposes of determining compliance with accessibility requirements, when the permitted length of time a vehicle may occupy an electric vehicle charging station differs from the permitted duration of stay in publicly accessible parking spaces in the same parking area, electric vehicle charging stations are not considered parking spaces. When the permitted duration of stay in a space served by electric vehicle charger(s) is the same as other publicly accessible parking spaces in the same parking area, EVCS may be considered parking spaces. The EVCS need not be reserved exclusively for electric vehicle charging.

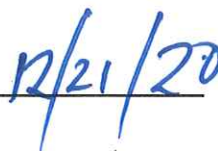
The purpose of this modification is to allow reasonable flexibility for sites with small amounts of publicly accessible vehicle stalls, *and* the majority of vehicle stalls are equipped with EVSE *and* accessible charging is provided. In such cases, the option is available to choose to allow spaces equipped with EVSE to be occupied by any vehicle, and to treat spaces with EVSE as "parking spaces" for purposes of accessibility compliance. This situation is rare, and the default approach (treating each space served by EVSE as an Electric Vehicle Charging Station and not a parking space for purposes of determining accessibility requirements) will be suitable for most projects.



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Department of Building Inspection



Date



Attachment 1: CHECKLIST FOR PERMITTING ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE)

This Information Sheet is subject to modification at any time. For the most current version, visit our website at <https://sfdbi.org/information-sheets>



## CHECKLIST FOR PERMITTING ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE)

### HOW TO USE CHECKLISTS IN THIS INFORMATION SHEET

Checklists in this Information Sheet identify what documentation is required for a specific scope of work, and to help you keep track as you assemble the required information. It is not necessary to submit checklists in Attachment 1 or 2; the checklists are informational.

- All Projects that require a building permit: Complete Table 1, identifying the types and quantity of EVCS proposed. Submit a complete permit application with each of the components on the subsequent 2 pages.
- All Projects where EVSE is installed serving parking available to the public: To demonstrate compliance with applicable accessibility requirements submit a permit application with each of the components identified in Attachment 2.

**Table 1: Identify the Applicable Electric Vehicle Service Equipment Proposed for Installation**

Category of Charging Station	Most Common For	Proposed Circuit Rating	Check Applicability
<b>Level 1</b>	Rarely used (Single Family Residence)	110/120 volt alternating current (VAC) at 15 or 20 Amps	<input type="checkbox"/>
<b>Level 2 – 3.3 kW (Low)</b>	Single Family Residence or Multi-Unit dwelling	208/240 VAC at 20 or 30 Amps	<input type="checkbox"/>
<b>Level 2 – 6.6 kW (Medium)</b>	Commercial Office Building	208/240 VAC at 40 Amps	<input type="checkbox"/>
<b>Level 2 – 9.6 kW (High)</b>	Public Access	208/240 VAC at 50 Amps	<input type="checkbox"/>
<b>Level 2 – 19.2 kW (Highest)</b>	Public Access	208/240 VAC at 100 Amps	<input type="checkbox"/>
<b>DC Fast Charging</b>	Public Access	208/240, 440 or 480 VAC 3-Phase	<input type="checkbox"/>
<b>Other (Provide Detail):</b>		Indicate Ratings:	<input type="checkbox"/>
<b>Are there Existing EVSE?</b>		Indicate Ratings:	

**General Requirements:**

Item	Requirement	Complete:
1.	Electrical Vehicle Charging Systems and installation comply with <ul style="list-style-type: none"> <li>• 2019 San Francisco Electrical Code</li> <li>• 2019 San Francisco Mechanical Code</li> <li>• 2019 San Francisco Building Code</li> <li>• 2019 San Francisco Fire Code</li> </ul>	<input type="checkbox"/>
2.	All electrical materials, devices, fittings and associated equipment are listed by a nationally recognized testing laboratory	<input type="checkbox"/>
3.	Electrical vehicle supply equipment are permanently connected and fastened in place per manufacturer’s instructions. (California Electrical Code Section 625.44)	<input type="checkbox"/>
4.	The coupling means of the electrical vehicle supply equipment are stored at a height of not less than 18” and not more than 48” above the finished floor. (California Electrical Code Section 625.50)	<input type="checkbox"/>

**Permit Requirements**

Electric vehicle chargers entail significant electrical load. There are two situations where an electrical load calculation is not required when EVSE are installed:

- Attachment of an EV charger to an existing receptacle meeting all EVSE manufacturer specifications
- Installation of a single Level 1 or Level 2 charger by a licensed electrical contractor registered and accepted by the Department of Building Inspection for electronic permitting, where the licensed electrical contractor verifies the existing panel has sufficient ampacity to install a circuit meeting all EVSE manufacturer specifications, and sufficient space for necessary overcurrent protective device.

In all other cases, a load calculation must be provided, and a new electrical panel may need to be installed to support additional electrical load added by the vehicle charger.

**What Type of Permit Application is required?**

Situation	Select One	Status
<b>Existing Electrical Receptacle only:</b> EV charger will be attached to an existing electrical receptacle, and receptacle meets all EVSE manufacturer specifications	<input type="checkbox"/>	Permit Not Required
<b>Electrical Trade Permit Only:</b> A single Level 1 or Level 2 charger will be installed by a licensed electrical contractor registered and accepted by the Department of Building Inspection for electronic permitting. <u>AND</u> The licensed electrical contractor verifies the existing panel has sufficient ampacity to install a circuit meeting all EVSE manufacturer specifications, and sufficient space for necessary overcurrent protective device.	<input type="checkbox"/>	Electrical Trade Permit; Load Calculation Not Required
<b>All Other Situations:</b> A complete application for building permit is required, including all general permit requirements below.	<input type="checkbox"/>	Building permit required

**General Requirements for Building Permit for Projects Installing EVSE:** Except as noted above, all projects installing or modifying electrical systems require a building permit (including electrical, and mechanical where applicable) as well as inspection of the installation for final approval by DBI.

Item	General Requirement	Complete
1.	Project address, parcel #, builder/owner name, contractor name, valid contractor license #, phone numbers.	<input type="checkbox"/>
2.	EVCS manufacturer's specs and installation guidelines.	<input type="checkbox"/>
3.	Detail documenting existing load, electrical service, and equipment.	<input type="checkbox"/>
4.	If ventilation and/or Battery systems are required for the charging unit or electrical equipment, an electrical plan review and Mechanical plan review is required.	<input type="checkbox"/>
5.	Electrical plan and calculations signed and stamped by California registered Electrical Engineer or the licensed Electrical Contractor who is responsible for design and installation of the system.	<input type="checkbox"/>
6.	Electrical load calculation and panel schedule (CEC 220).	<input type="checkbox"/>

**Additional Permit Requirements for Building Permit including EVSE, in Parking Primarily Serving Non-Residential Occupancy and/or Residential Occupancy Excluding R-3**

Item	Requirement	Complete
1.	If mechanical ventilation is triggered for indoor venting requirements (CEC 625.25), include mechanical plan with permit application.	<input type="checkbox"/>
2.	One-line diagram, including all relevant information regarding electrical charger, panels, raceways, wire types and sizes, utility service main breaker ampacity and utility service voltage.	<input type="checkbox"/>
3.	Electrical plan and calculations signed and stamped by California registered Electrical Engineer or the licensed Electrical Contractor responsible for design and installation of the system.	<input type="checkbox"/>
4.	Provide information from the manufacturer indicating whether ventilation is required or not. Label on plan and provide mechanical ventilation accordingly if ventilation is required.	<input type="checkbox"/>
5.	Charging unit rated more than 60 amps or more than 150V to ground: The disconnecting means provided in a readily accessible location is in line of site and within 50' of EVCS (CEC 625.23).	<input type="checkbox"/>
6.	Site plan approximately to scale including locations of new and existing panels, meter, charging unit and associated items.	<input type="checkbox"/>
7.	Copy of Nationally Recognized Testing Laboratory (NRTL) approved listing mark (UL 2202/UL 2200) for all equipment.	<input type="checkbox"/>
8.	When trenching is required all work shall be compliance with CEC 225 and CEC 300	<input type="checkbox"/>



**Universal Access**

Item	Requirement	Check One
1.	Comply with California Building Code 11B requirements for accessible EVCS and related provisions.	<input type="checkbox"/>
2.	Confirm CBC 11B and ADA do not require accessible EVCS due to one of the following situations: <ul style="list-style-type: none"> <li>• EVCS exclusively serve vehicle stalls that are not available to the general public and are exclusively for use by a designated driver or vehicle. For example, spaces designated for public or private fleet vehicles, or an EVCS assigned to a designated parking spot for a specific employee.</li> <li>• Assigned parking spaces in private or public housing, where EVCS is intended for use by an electric vehicle owner or driver with an assigned parking space.</li> </ul>	<input type="checkbox"/>