


<b>County of San Bernardino</b>			
	<b>City of Chino</b> <b>Community Development</b> <b>Building &amp; Safety</b>		
	<b>Non-Residential Electric Vehicle (EV) Charger Guidelines</b>		
Phone 909-334-3251 Inspection 909-334-3252	13320 Central Avenue, Chino, CA		
Fax 909-334-3279	1/1/2022	Vehicle Charger Standard	PAGE 1 OF 10

*This document provides all the needed links to forms and checklists necessary to utilize Permit Chino's Expedited Permitting Process for Electric Vehicle Charging Stations (EVCS). This process provides an expedited and streamlined permitting process for qualifying EVCS systems. Once all the documentation is correctly and fully completed and submitted, a permit will be processed and approved for issuance in a timely manner.*

**Step 1.** Download, review and complete the Non-Residential Electric Vehicle Charging Stations (EVCS) Checklist below. Submit all information requested on the checklist.

**Step 2.** Fully complete and sign a Building Permit Application form.

<https://www.cityofchino.org/DocumentCenter/View/2669/Building-Permit-Application-PDF->

**Step 3.** Complete and sign the Smoke Alarm & Carbon Monoxide Alarm form.

<https://www.cityofchino.org/DocumentCenter/View/227/Smoke-and-Carbon-Monoxide-Alarm-Retrofit-Verification-PDF>

**Step 4.** Submit all of the required documentation (Step 1 through Step 3) You will be notified by email when documents have been reviewed and approved permit is ready to be issued.

**Submittal Requirements Checklist for Permitting of Electric Vehicle Charging Stations (EVCS)**

This checklist is provided to guide applicants through a streamlined permitting process for Electric Vehicle Charging Stations (EVCS).

**1. Approval Requirements**

a) The Building Department will conduct the plan review and inspection for EVCS installations.

b) Planning Department plan review approval is not required for EVCS installations unless the Building Official determines that the proposed EVCS will have a specific, adverse impact upon the public health or safety.

c) Fire Department plan review and inspection approval is not required for EVCS installations unless the system includes a stationary storage battery system as defined in the CA Fire Code.

## **2. Submittal Information**

a) All forms and checklists described herein are available on the Chino web site located at <https://www.cityofchino.org/180/Building-Applications-Forms> Building Permit Application (available at Chino web site) is required for all EVCS installations.

c) One copy of this checklist must be completed and submitted to the building division along with the Building Permit application. Please provide an explanation for any checklist item not completed or met.

d) The project shall be submitted online <https://aca.cityofchino.org/CitizenAccess/Default.aspx> Plan submittals shall include, but not be limited to:

1) A Title Page

2) A Site Plan [Not required for Level One or Level Two EVCS equipment installed within an existing one- or two-family residential structure (i.e., garage or carport)].

3) An Electrical Floor Plan [Not required for exterior EVCS equipment installations].

4) A Single-Line Electrical Diagram [Not required for Level 1 charging station installations].

5) EVCS Manufacturer Installation Details and Specifications.

6) Electrical Service Load Calculations.

## **3. General Requirements for EVCS to be Shown and Noted on Plans**

Use the following checklist items for preparation and submittal of your plans. The level of detail and the specific plan

requirements will depend upon the extent, nature and complexity of the work to be done. All applicable checklist

items must be noted or specified on the plans. Indicate the plan sheet number where the applicable requirement is shown or specified.

**Type of EVCS 9 (Please check one)**

Check one	Type of charging station (s) Proposed	Power levels (proposed circuit rating)
<input type="checkbox"/>	Level 1	110/120 volt alternating current (VAC) at 15 or 20 Amps
<input type="checkbox"/>	Level 2-3.3 kilowatt (KW) (Low)	208/240VAC at 20 or 30 Amps
<input type="checkbox"/>	Level 2-6.6kw (medium)	208/240VAC at 40 Amps
<input type="checkbox"/>	Level 2-9.6kw (high)	208/240 VAC at 50 Amps
<input type="checkbox"/>	Level 2-19.2kw (highest)	208/240 VAC at 100 Amps
<input type="checkbox"/>	DC Fast Charging	440 or 480 VAC
<input type="checkbox"/>	Other(specify and provide details)	

**5. Submittal Requirements Checklist for EVCS (Please check one)**

<b>Yes</b> <input type="checkbox"/> <b>or</b> <b>No</b> <input type="checkbox"/>	1. The permit application is complete with the following information: <ul style="list-style-type: none"> <li>• Project address and parcel number.</li> <li>• Owner name, address, and phone number.</li> <li>• Contractor name, address and phone number and contractor’s license number; and</li> <li>• Other information requested on the permit application form?</li> </ul>
<b>Yes</b> <input type="checkbox"/> <b>or No</b> <input type="checkbox"/>	2. An electrical load calculation is included with the permit application? (CEC1 220)
<b>Yes</b> <input type="checkbox"/> <b>or</b> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/> Yes No	3. Based on the required load calculation <sup>2</sup> , is an electrical service panel upgrade required? If yes, do plans show and specify the electrical service panel upgrade?
<b>Yes</b> <input type="checkbox"/> <b>or</b> <b>No</b> <input type="checkbox"/>	4. The EVCS branch circuit conductor is appropriately sized for a continuous load of 125% of the EVCS equipment plus any other non-continuous loads per CEC 210.19?

Plans	GENERAL
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>	<p><b>5.</b> The plans include a Title Page with property information including, but not limited to:</p> <ul style="list-style-type: none"> <li>• address of property.</li> <li>• name, address, phone number of the property owner.</li> <li>• name, address, phone number and license number of the person responsible for the EVCS system design.</li> <li>• codes applicable to the project.</li> <li>• occupancy and use of the facilities; and</li> <li>• narrative description and scope of the proposed work?</li> </ul>
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>	<p><b>6.</b> A Site Plan is included with the permit application and includes the following information?  [Not required for Level One or Level Two EVCS equipment installed within an existing one- or two-family residential structure (i.e., garage or carport)]:</p> <ul style="list-style-type: none"> <li>• Location and name of structure(s) on the site.</li> <li>• Property lines, streets, lot dimensions, north arrow, the distance from property lines to structures and the proposed EVCS equipment.</li> <li>• Dimensioned parking improvements, driveways, etc.</li> <li>• EVCS equipment, main electric service panel, disconnects and overcurrent protection locations.</li> <li>• Underground conduit locations and routing.</li> <li>• Location of additional meter, if applicable.</li> <li>• All site related accessibility requirements prescribed by CA Building Code (CBC) Sections 11B-228 and 11B-812 are shown and fully specified. [Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]</li> <li>• Detailed and specific site of all related proposed work. [See additional requirements below.]</li> </ul>
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<p><b>7.</b> An Electrical Floor Plan is included with the permit application and includes the following information? [Not required for exterior installations.]</p> <ul style="list-style-type: none"> <li>• Plan view of the location of the proposed EVCS equipment including the use of the space or area where the EVCS will be installed.</li> <li>• All applicable electrical plan related requirements of CEC Article 625 are shown or specified on the plan.</li> <li>• All electrical plan related accessibility requirements prescribed by CA Building Code (CBC) Sections 11B-228 and 11B-812 are shown and fully specified. [Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]</li> <li>• Detailed and specific plan of all related proposed work. [See additional requirements below.]</li> </ul>
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<p><b>8.</b> A Single-Line Electrical Diagram is included with the permit application and includes the following information? [Not required for Level 1 charging station installations.]</p> <ul style="list-style-type: none"> <li>• List and label all EVCS supply equipment.</li> <li>• Conductor and conduit size, type and location.</li> <li>• Size of the over current device (circuit breaker) supplying the EVCS;</li> <li>• The size and location of the main electric panel, distribution panels (sub panels), overcurrent protection, disconnects, additional meters, and EVCS equipment.</li> <li>• The type (level), voltage and ampacity for each charging station.</li> </ul>

	<ul style="list-style-type: none"> <li>• All equipment labeling requirements per CEC 625.15.</li> </ul>
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<b>9.</b> Two (2) sets of the EVCS Manufacturer Installation Details and Specifications are included with the permit application?
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<b>10.</b> Two (2) copies of Electrical Service Load Calculations are provided for sizing of the electrical service panel pursuant to CA Electrical Code (CEC) Article 220? [NOTE: Make sure to include 125% of the EV charging station load in the calculation.]
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<b>11.</b> If the EVCS equipment is listed for charging electric vehicles that require ventilation for indoor charging, is a Mechanical Plan showing and specifying all of the ventilation requirements prescribed by CEC 625.52 included with the permit application?
<b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>N/A</b> <input type="checkbox"/>	<b>12.</b> The project site is located outside of a 100-year flood hazard zone? [NOTE: If the charging equipment is located within a 100-year flood hazard zone, the EVCS equipment shall be elevated above the base flood elevation. The base flood elevation must be determined, and an elevation certificate submitted by a registered land surveyor. (Sonoma Municipal Code 14.25.160)]

<b>Plans</b>	<b>2019 CALIFORNIA ELECTRICAL CODE - MINIMUM PLAN REQUIREMENTS</b>
<b>Yes No</b> <b>Sheet#</b> _____	<b>13.</b> The plans indicate that the installation shall meet all requirements Electrical Code - Article 625 for Electric Vehicle Charging Systems.
<b>Yes No</b> <b>Sheet#</b> _____	<b>14.</b> The plans identify the amperage and location of the existing (or new) electrical service panel and the service panel is sized in accordance with the electrical service load calculations? (CEC 220)
<b>Yes No</b> <b>Sheet#</b> _____	<b>15.</b> The plans indicate the size of the service entrance conductors.
<b>Yes No</b> <b>Sheet#</b> _____	<b>16.</b> The plans indicate that the charging equipment shall have a Nationally Recognized Testing Laboratory (NRTL) approved listing mark? (UL 2202/UL 2200)
<b>Yes No</b> <b>Sheet#</b> _____	<b>17.</b> The single-line electrical diagram shows and specifies the required overcurrent protection for the proposed EVCS?
<b>Yes No</b> <b>Sheet#</b> _____	<b>18.</b> Conduit and conductor size and type are specified and the routes and requirements for their installation (i.e., within framing, mounted to structures, underground, etc.) are shown?
<b>Yes No</b> <b>Sheet#</b> _____	<b>19.</b> The plans specify that the electric vehicle charging system shall be installed in accordance with manufacturer’s installation instructions and shall be suitable for the environment (indoor/outdoor) in which they will be installed?
<b>Yes No</b> <b>Sheet#</b> _____	<b>20.</b> The plans specify where the labeling of the EVCS equipment (i.e., “FOR USE WITH ELECTRIC VEHICLES”, “VENTILATION NOT REQUIRED”, “VENTILATION REQUIRED”, etc.) is required? (CEC 625.15)
<b>Yes No</b> <b>Sheet#</b> _____	<b>21.</b> An approval letter from PG&E is provided to the building department if a dedicated electrical meter is to be installed for the electric vehicle charging system? [NOTE: If a single mast will continue to be used to serve two meters, ensure that the service

	entrance conductors are sized for the sum of the two meters, in accordance with CEC Article 310.]
<b>Yes No Sheet#</b> _____	22.If the EV charging equipment is rated more than 60 amps or more than 150V to ground, the plans specify that the disconnecting means shall be lockable open and shall be provided in a readily accessible location? (CEC 625.42)
<b>Yes No Sheet#</b> _____	23.The plans specify that the EVCS equipment disconnecting means shall be identified with a durable label stating, “Emergency Power Off – Electric Vehicle Charging Station”? (CEC110.21)
<b>Yes No Sheet#</b> _____	24.The plans specify that the main service conductors and the equipment for the protection of electrical service (i.e., disconnecting means, overcurrent protection, etc.) will be installed in accordance with CEC Article 230?
<b>Yes No Sheet#</b> _____	25.If trenching is required, a trenching detail is provided on the plans showing compliance with the minimum cover requirements pursuant to CEC 300.5? [NOTE: trenching for electrical feeders from structure to structure must comply with CEC 225.]
<b>Yes No Sheet#</b> _____	26.Physical protection such as a bollard is shown and detailed on the plans when vehicle impact protection for EVCS equipment is required? (CEC 110.27 (B)) [NOTE: Typically, not required for Level 1 EVCS. Physical protection from damage is often a 4” diameter steel pipe filled with concrete, a minimum of 40” above the finished floor/grade, installed in a footing measuring 12” in diameter and 3’ deep].
<b>Yes No Sheet#</b> _____	27.The plans show and specify the mounting height for the charging coupling (the connector nozzle) and the operable controls? [NOTE: If installed indoors, the electric vehicle charging coupling shall be located between 18” and 48” above the finished floor. If installed outdoors, the electric vehicle charging coupling shall be located between 24” and 48” above the finished grade. (CEC 625.50 and CBC 11B-309)
<b>Yes No Sheet#</b> _____	28. If the EVCS is installed within in a building containing an R (residential) occupancy, the plans show and specify the location for all required smoke and carbon monoxide alarms within the dwelling(s)? (CBC 907.2.11, CBC 915, CRC R314 and CRC R315) [NOTE: In lieu of showing and specifying the location for all required smoke and carbon monoxide alarms within the dwelling(s), a CNI-037 Smoke & Carbon Monoxide Alarm Self Verification Form, available on Permit Sonoma’s web site, may be completed, signed and submitted with the application.]

<b>Plans</b>	<b>2019 CALGREEN REQUIREMENTS</b>
<b>Yes No Sheet#</b> _____	29. Does the number of proposed electric vehicle charging spaces conform to the Tier 1 requirements of California Green Building Code (CGBC)? (CGBC A4.106.8.2 and A5.106.5.3) [Only applies to newly constructed multi-family residential and newly constructed non-residential projects.]

**PLANS 2019 CALIFORNIA BUILDING CODE ACCESSIBILITY REQUIREMENTS**

Plans	2019 California Building Code Accessibility Requirements
Yes <input type="checkbox"/> N/A <input type="checkbox"/> No <input type="checkbox"/>	30. [NOTE: Accessibility requirements are required for public and common use areas, public accommodations, commercial facilities, and public housing as defined in the CA Building Code.]  The plans show and specify all the applicable accessibility requirements prescribed in CBC Chapter 11B, including but not limited to the requirements of the following sections:
Yes <input type="checkbox"/> N/A <input type="checkbox"/> No <input type="checkbox"/> Sheet# _____	11B-202.4 (Path of Travel Requirements in Alterations, Additions and Structural Repairs) [See 11B-202.4 Exception 10 for Path of Travel Requirement Exceptions]
Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____ Sheet# _____	<ul style="list-style-type: none"> <li>• 11B-302 Floor or Ground Surfaces)</li> <li>• 11B-303 Changes in Level</li> <li>• 11B-305 Clear Floor or Ground Space</li> <li>• 11B-308 Reach Ranges</li> <li>• 11B-309 Operable Parts</li> <li>• 11B-402 Accessible Route</li> <li>• 11B-703.3 Braille</li> <li>• 11B-703.7 Symbols of Accessibility</li> <li>• 11B-703.7.2.1 (International Symbol of Accessibility</li> <li>• 11B-707.2 (Clear Floor or Ground Space);</li> <li>• 11B-707.3 Operable Parts</li> <li>• 11B-707.7.2 Characters</li> <li>• 11B-707.9 Point-of-Sale Devices</li> <li>• 11B-812 Electric Vehicle Charging Stations)</li> </ul>

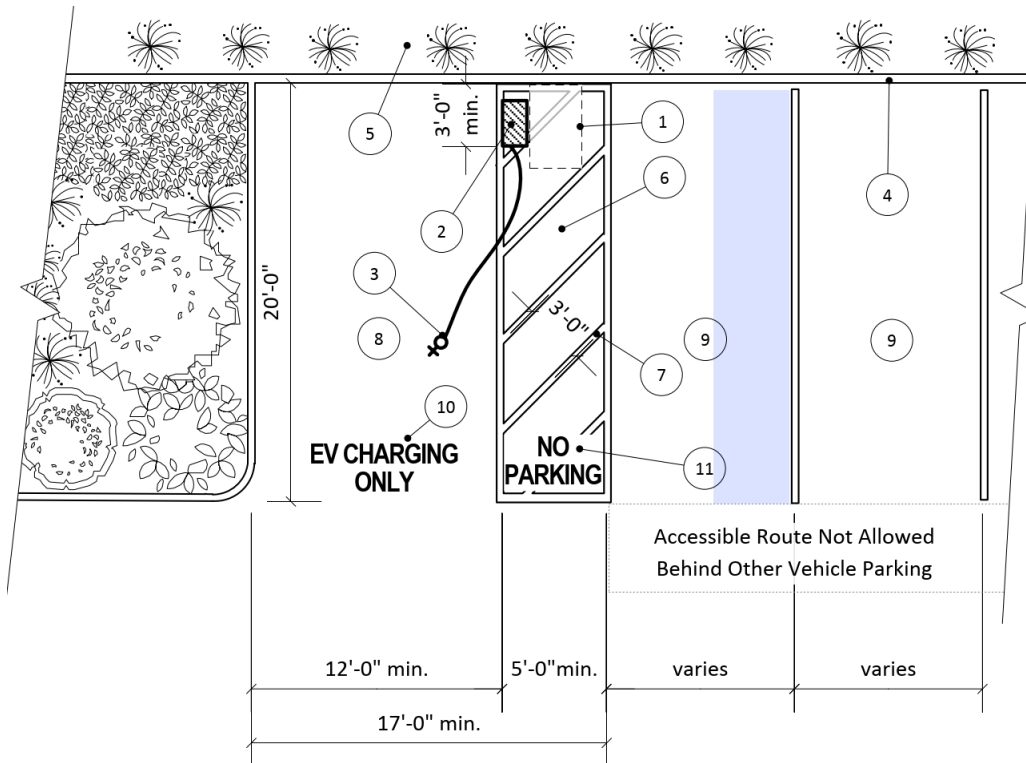
Electrical plans shall be completed, stamped, and signed by a California Licensed Electrical Engineer or a C-10 electrical contractor.

Project Address \_\_\_\_\_

Name of person completing the Checklist (Please Print) \_\_\_\_\_

Signature \_\_\_\_\_

Electrical Engineer or Contractor's License Number # and Type \_\_\_\_\_

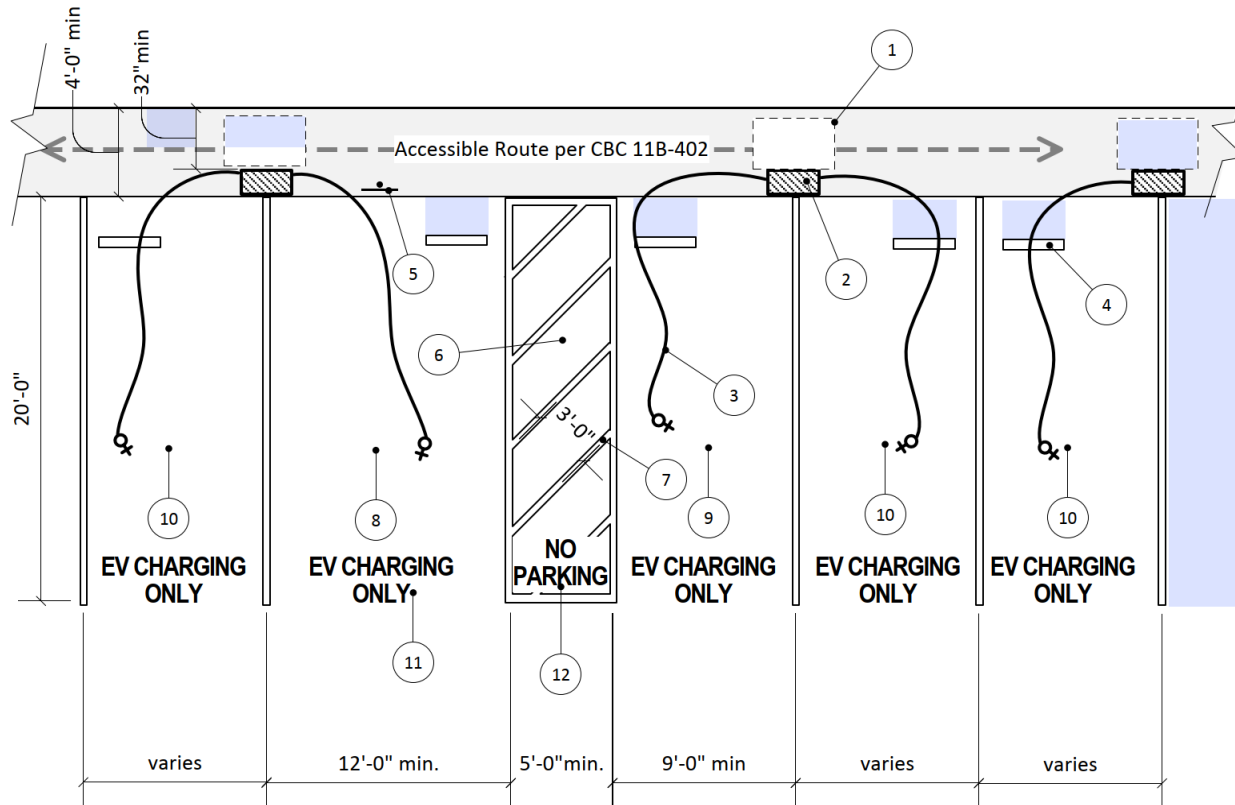


**Typical Single Electric Vehicle Charging Station Configuration  
For an Existing Commercial Facility or Public Accommodation**

**KEY LEGEND**

1. 30" x 48" clear space for parallel approach (CBC 11B-302).
2. Electric Vehicle Charging Station (EVCS)(see CBC 11B-228.3 & 11B-812 for requirements).
3. Electric Vehicle Charging Station coupling (nozzle) and conductor.
4. Curb
5. No International Symbol of Accessibility (ISA) sign or "Van Accessible" sign is required (see CBC 11B-812.8)
6. 60" minimum width access aisle located on the passenger side of a van accessible space and at the same level as the adjacent vehicle space. (CBC 11B-812.7)
7. Contrasting border and 36" maximum on center diagonal hatched lines designating the access aisle. Access aisles borderlines and hatched lines for EVCS spaces shall not be blue. (CBC 11B-812.7.2)
8. Minimum 144" wide by 216" long van accessible lined EVCS space (ISA sign and "Van Accessible" sign NOT required). (CBC 11B-812.6.1 and 11B-812.8)
9. Parking space not regulated by CBC 11B-812.
10. 12" high "EV CHARGING ONLY" surface marking at the end of each EVCS space. (CBC 11B-812.9)
11. 12" high "NO PARKING" surface marking within the access aisle. (CBC 11B-812.7.3)





**Typical Electric Vehicle Charging Station Configuration for Public Use**

**KEY LEGEND**

1. 30" x 48" clear space for parallel approach (CBC 11B-302).
2. Electric Vehicle Charging Station (EVCS)(see CBC 11B-228.3 & 11B-812 for requirements).
3. Electric Vehicle Charging Station coupling (nozzle) and conductor.
4. Wheel stop.
5. 70 sq. in reflectorized International Symbol of Accessibility (ISA) sign required at van accessible charging station when 5 or more EVCS spaces are provided. "Van Accessible" sign shall also be provided. (see CBC 11B-812.8 for additional requirements)
6. 60" minimum width access aisle located on the passenger side of a van accessible space and at the same level as the adjacent vehicle space. (CBC 11B-812.7)
7. Contrasting border and 36" maximum on center diagonal hatched lines designating the access aisle. Access aisles borderlines and hatched lines for EVCS spaces shall not be blue. (CBC 11B-812.7.2)
8. Minimum 144" wide by 216" long van accessible lined EVCS space (ISA sign and "Van Accessible" sign required). (CBC 11B-812.6.1 and 11B-812.8)
9. Minimum 108" wide by 216" standard accessible lined EVCS space (ISA sign not required unless 26 or more EVCS are provided). (CBC 11B-812.6.2)
10. EVCS space not regulated by CBC 11B-812.
11. 12" high "EV CHARGING ONLY" surface marking at the end of each EVCS space. (CBC 11B-812.9)
12. 12" high "NO PARKING" surface marking within the access aisle. (CBC 11B-812.7.3)

***Plan Review*** Permit applications must be submitted online building permit portal <https://aca.cityofchino.org/citizenaccess> Permit applications eligible for the expedited permitting process will receive a high priority and be reviewed as early as practical with a processing goal of maximum of five business days for 1-25 EVCS station at a site and ten business days for 26 or more EVCS stations at a same site following receipt of the submittal.

### ***7. Inspections***

Once all permits to construct the EVCS have been issued rough electrical, underground burial (if applicable) inspections will be required. After the system has been installed, it must be inspected before final approval is granted for the EVCS system. On-site inspections can be scheduled by visiting the Permit chino Inspection Scheduling page at <https://aca.cityofchino.org/citizenaccess> or by contacting the Permit Chino's automated scheduling system at (909) 334-3252. Inspection requests must be received before 3:00 P.M. one day prior scheduled inspection.

Permit holders must provide the inspector with the Building Department Approved Job Plans, the Building Permit Inspection Record Card, and access to the location of the work. The permittee must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and the approved plans.