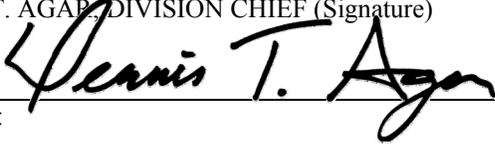


**POLICY DIRECTIVE**

TR-0011 (REV 9/2006)

<b>TRAFFIC OPERATIONS POLICY DIRECTIVE</b>	NUMBER: <b>13-01</b>	PAGE: 1 of 17
DENNIS T. AGAP, DIVISION CHIEF (Signature) 	DATE ISSUED: March 14, 2013	EFFECTIVE DATE: March 14, 2013
SUBJECT:  <b>Zero Emission Vehicle Signs and Pavement Markings</b>	DISTRIBUTION <input checked="" type="checkbox"/> All District Directors <input checked="" type="checkbox"/> All Deputy District Directors - Traffic Operations <input checked="" type="checkbox"/> All Deputy District Directors - Maintenance <input checked="" type="checkbox"/> All Deputy District Directors - Construction <input checked="" type="checkbox"/> All Deputy District Directors - Design <input checked="" type="checkbox"/> All Deputy District Directors - Transportation Planning <input type="checkbox"/> Chief, Division of Engineering Services <input type="checkbox"/> Chief Counsel, Legal Division <input checked="" type="checkbox"/> Publications (California MUTCD Website) <a href="http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm">www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm</a> <input checked="" type="checkbox"/> Headquarters Division Chiefs for: <u>Construction, Maintenance, Design, Public Affairs, and</u> <u>Transportation Planning</u>	
DOES THIS DIRECTIVE AFFECT OR SUPERSEDE ANOTHER DOCUMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IF YES, DESCRIBE	
WILL THIS DIRECTIVE BE INCORPORATED IN THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	IF YES, DESCRIBE Adopt new sign and markings policy language in sections 2B.46, 2I.03, and 3B.20 of the CA MUTCD	

**DIRECTIVE**

The Governor's Executive Order B-16-2012, dated March 23, 2012, requires all State entities under the governor's direction and control to support and facilitate the rapid commercialization of zero-emission vehicles (ZEV's). The California Department of Transportation (Caltrans), after consulting with local agencies, the public, and the Governor's Office of Planning and Research will amend the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). Changes include six new signs, one new header plaque, two new optional pavement markings, deleting two existing signs, and updating content in various sections, figures and tables of the CA MUTCD. These policy and specification updates provide regulatory and general information signs and pavement markings to guide and regulate road users who operate ZEV's. The purpose of this directive is to implement Governor's Executive Order B-16-2012, update existing administrative law, and to provide detailed specifications for uniform use by State and local government agencies, as well as use by private entities at facilities open to public travel.

**POLICY DIRECTIVE****DIRECTIVE (continued)**

Pursuant to the authority granted to Caltrans in section 21400 and 21401 of the California Vehicle Code (CVC), the following new signs and pavement markings shall be included (or deleted) in Parts 2 and 3 of the CA MUTCD, dated January 13, 2012.

California Code	MUTCD Code	Title of the sign, plaque or pavement markings	CA MUTCD Section
R112(CA)	None	Electric Vehicle Charging Station Tow-Away	2B.46
R113(CA)	None	No Parking EXCEPT FOR EV CHARGING	2B.46
R113A(CA)	None	No Parking EXCEPT FOR ELECTRIC VEHICLE CHARGING	2B.46
R114(CA)	None	__ HOUR EV CHARGING - __ AM TO __ PM	2B.46
R114A(CA)	None	__ HOUR ELECTRIC VEHICLE CHARGING - __ AM TO __ PM	2B.46
G66-21B(CA)	None	Electric Vehicle Charging Station symbol	2I.03
G66-21C(CA)	None	FAST Electric Vehicle Charging Station (header plaque)	2I.03
None	D9-11b	(DELETED) Electric Vehicle Charging	2I.02
None	D9-11bP	(DELETED) ELECTRIC VEHICLE CHARGING (plaque)	2I.02
Figure 3B-108(CA)	None	Electric Vehicle Charging Station Pavement Marking Details (optional for 12" and 6" high word messages)	3B.20

**IMPLEMENTATION**

In this section, for purposes of clarity, italic text is used to denote text that is being added to the CA MUTCD. All other formatting as defined under the Definitions section of this Policy Directive is still applicable.

The following policies shall be included in the CA MUTCD, as follows:

**Section 2B.46 Parking, Standing, and Stopping Signs (R7 and R8 Series)****Electric Vehicle Charging Station Signs*****Standard:***

*<sup>84</sup> If used, the Electric Vehicle Charging Station Tow-Away (R112(CA)) sign shall be placed immediately adjacent to, and visible from, the charging station stall or space, or at each entrance to an off-street parking facility to inform motorists that their vehicles will be towed away if parked in designated stalls or spaces without being connected for electric charging purposes. The sign shall include the address where the towed vehicle can be reclaimed and the telephone number of the local traffic law enforcement agency. Refer to CVC 22511.*

***Option:***

*<sup>85</sup> Local agencies may, at their discretion, include CVC Section 22511 or local municipal code section, or ordinance number on the Electric Vehicle Charging Station Tow-Away R112(CA) sign.*

**POLICY DIRECTIVE****IMPLEMENTATION (continued)****Section 2B.46 Parking, Standing, and Stopping Signs (R7 and R8 Series)****Electric Vehicle Charging Station Signs****Standard:**

*<sup>86</sup> If used, the No Parking (symbol) EXCEPT FOR EV CHARGING (R113(CA)), or the No Parking (symbol) EXCEPT FOR ELECTRIC VEHICLE CHARGING (R113A(CA)) sign shall be placed immediately adjacent to, and visible from, each charging station stall or space.*

*<sup>87</sup> If used, the      HOUR EV CHARGING      AM TO      PM (R114(CA)), or the      HOUR ELECTRIC VEHICLE CHARGING      AM TO      PM (R114A(CA)) sign shall be placed immediately adjacent to, and visible from, each charging station stall or space to identify the allowable time limit where electric vehicles may be connected, depending upon what time limitations for charging apply to each charging station.*

**Section 2I.03 Section 2I.03 General Service Signs for Freeways and Expressways****Electric Vehicle Charging Station Signs (G66-21(CA), G66-21A(CA), G66-21B(CA), G66-21C(CA))****Guidance:**

<sup>34</sup> To avoid misleading the road user, those services that are more than 0.5 mile from the access point on the major route to the service, should have a Distance with Arrow (G66-21A(CA)) plaque installed below the service sign.

Option: (in Paragraph 41, subpart #13)

13. Where hydrogen (HYD) fuel is available, the Hydrogen (G66-22G(CA)) symbol sign and HYDROGEN (G66-22H(CA)) supplemental plaque may be used *within 3 miles of a State highway and be available to the public at least 16 hours a day*, in addition to the other appropriate signs.

Option:

<sup>43</sup> The *Electric Vehicle Charging Station (G66-21B(CA)) symbol sign, or the ELECTRIC VEHICLE CHARGING STATION (G66-21(CA)) sign* may be used for Electric Vehicle Charging Stations within 3 miles of a State highway and be available to the public at least 16 hours a day.

**Standard:**

<sup>44</sup> **Follow-up signing, if necessary, shall be placed by local agencies before signs are placed on the State highway.**

Option:

<sup>45</sup> The Distance with Arrow (G66-21A(CA)) plaque may be used to supplement the G66-21(CA), or G66-21B(CA) sign to provide distance and directional information to the motorist. *It may also be used with other general service signs (See Paragraph 34).*

<sup>45a</sup> *The FAST (G66-21C(CA)) header plaque may be used to supplement the G66-21(CA), or G66-21B(CA) sign to indicate that a Fast Electric Vehicle Charging Station is located off the State highway.*

Support:

<sup>45b</sup> *A Fast Electric Vehicle Charging Station is where the rate of battery electric charging is at least 20 kWh in a 30-minute period. Fast charging stations include direct current (DC) fast charging and battery switching.*

**POLICY DIRECTIVE**

**IMPLEMENTATION (continued)**

**Section 3B.20 Pavement Word, Symbol, and Arrow Markings**

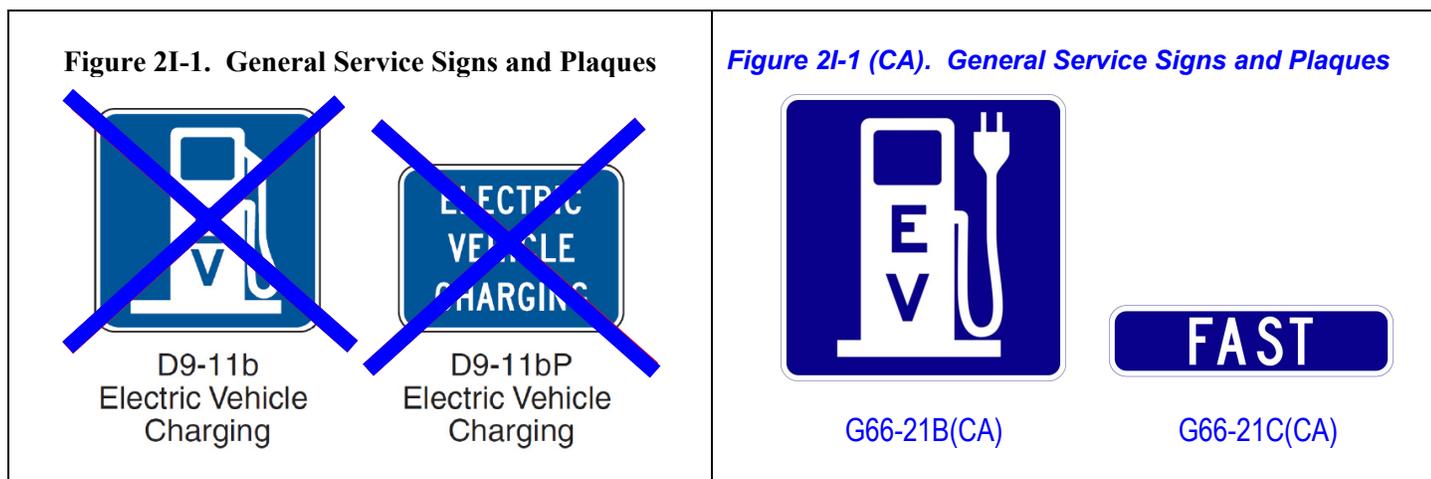
**Electric Vehicle Charging Station Markings**

*Option:*

*18 Electric vehicle charging stations in off-street locations may be marked with white EV CHARGING ONLY, or ELECTRIC VEHICLE CHARGING ONLY pavement markings (See details in Figure 3B-108(CA)) to supplement Electric Vehicle Charging Station signs in Section 2B.46 and 2I.03.*

For regulatory sign thumbnail graphics and sign codes added to Figure 2B-24(CA), and new entries to Table 2B-1(CA), see Attachment #1. For pavement markings Figure 3B.108(CA), see attachments #10 and #11.

The proposed changes will require deletion of two existing national MUTCD signs, shown in Figure 2I-1 and in Table 2I-1. Currently there is no existing policy language for these two signs. Figure 2I-1(CA) will be edited to include G66-21B(CA) and G66-21C(CA) thumbnail graphics and new sign codes, and Table 2I-1(CA) will be amended to include the following new entries:



**Table 2I-1. General Service Sign and Plaque Sizes (Sheet 1 of 2)**

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
<del>Electric Vehicle Charging</del>	<del>D9-11b</del>	<del>2I.02</del>	<del>24 x 24</del>	<del>30 x 30</del>
<del>Electric Vehicle Charging (plaque)</del>	<del>D9-11bP</del>	<del>2I.02</del>	<del>24 x 18</del>	<del>30 x 24</del>

**Table 2I-1 (CA). California General Service Sign and Plaque Sizes**

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Electric Vehicle Charging Station	G66-21B(CA)	2I.03	24 x 24	30 x 30
FAST (header plaque)	G66-21C(CA)	2I.03	24 x 6	30 x 8

**ADA Notice**

For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 653-3657 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS89, Sacramento, CA 95814.

**POLICY DIRECTIVE**

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**DELEGATION**

No new delegations of authority are created under this policy.

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**BACKGROUND**

The revision of existing signs and inclusion of new signs and markings in the CA MUTCD is a common practice based upon need. Caltrans, pursuant to CVC Section 21400; must conduct public hearings before it can revise existing policies for traffic control devices and approve new signs for use on public roadways. The California Traffic Control Devices Committee (CTCDC) is the forum used to satisfy this requirement.

Governor Brown's Executive Order B-16-2012, dated March 23, 2012, found on the Web address, at <<http://gov.ca.gov/news.php?id=17463>>, per Governor Brown's Executive Order, Caltrans and Sonoma County, consulted with representatives of the public and California cities and counties to establish new sign and pavement marking policy standards, guidance, options, and support for Caltrans to include in the CA MUTCD 2012 edition.

Agenda Item 12-23, Zero Emission Vehicle Signs and Pavement Markings, was presented as an action item to the CTCDC on December 6, 2012 in Santa Cruz, California. Per discussion at the public hearing, the CTCDC recommended adoption of the electric vehicle signs as proposed in the agenda, with minor suggestions. First, make the use of these signs as optional, which means it is up to local agencies whether they want to install signs or not. The sign specification for the Tow-Away sign will list CVC 22511 or local ordinance on the sign. Second, spell out "ELECTRIC VEHICLE" so agencies have the option to use the "Acceptable Abbreviation" EV (per CA MUTCD, Table 1A-1) or ELECTRIC VEHICLE on both regulatory signs and optional pavement markings. The adopted new policy language provides both the abbreviated and spelled-out language on signs and pavement markings.

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**DEFINITIONS**

When used in this Traffic Operations Policy Directive, the text shall be defined as follows:

- 1) **Standard** – a statement of required, mandatory or specifically prohibited practice. All standards text appears in **bold** type. The verb **shall** is typically used. Standards are sometimes modified by Options.
- 2) Guidance – a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements text appears in underline type. The verb should is typically used. Guidance statements are sometime modified by Options.
- 3) Option – a statement of practice that is a permissive condition and carries no requirement or recommendation. Options may contain allowable modifications to a Standard or Guidance. All Option statements text appears in normal type. The verb may is typically used.
- 4) Support – an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements text appears in normal type. The verbs shall, should and may are not used in Support statements.

**POLICY DIRECTIVE****ATTACHMENTS**

1. 2012 CA MUTCD edits to include regulatory sign thumbnail graphics, sign codes and sizes: **Figure 2B-24(CA). Parking and Standing Signs and Plaques (R7 Series), & Table 2B-1(CA). California Regulatory Sign and Plaque Sizes** Page 7 of 17
2. Sign specification R112(CA) Electric Vehicle Charging Station Tow-Away sign Page 8 of 17
3. Sign specification R113(CA) No Parking EXCEPT FOR EV CHARGING sign Page 9 of 17
4. Sign specification R113A(CA) No Parking EXCEPT FOR ELECTRIC VEHICLE CHARGING sign Page 10 of 17
5. Sign specification R114(CA) \_\_ HOUR EV CHARGING \_\_ AM TO \_\_ PM sign Page 11 of 17
6. Sign specification R114A(CA) \_\_ HOUR ELECTRIC VEHICLE CHARGING \_\_ AM TO \_\_ PM sign Page 12 of 17
7. Sign specification G66-21B(CA) Electric Vehicle Charging Station symbol sign Page 13 of 17
8. Symbol grid G66-21B(CA) Electric Vehicle Charging Station symbol sign Page 14 of 17
9. Sign specification G66-21C(CA) FAST header plaque Page 15 of 17
10. 2012 CA MUTCD edits to include new pavement marking detail: Page 16 of 17  
**Figure 3B-108(CA) Electric Vehicle Charging Station Pavement Marking Details**  
“EV CHARGING ONLY” in 12-inch high letters
11. 2012 CA MUTCD edits to include new pavement marking detail: Page 17 of 17  
**Figure 3B-108(CA) Electric Vehicle Charging Station Pavement Marking Details**  
“ELECTRIC VEHICLE CHARGING ONLY” in 6-inch high letters

**POLICY DIRECTIVE**

**Attachment #1:** 2012 CA MUTCD edits to include regulatory sign thumbnail graphics, sign codes & sizes:

**Figure 2B-24(CA). Parking and Standing Signs and Plaques (R7 Series)**



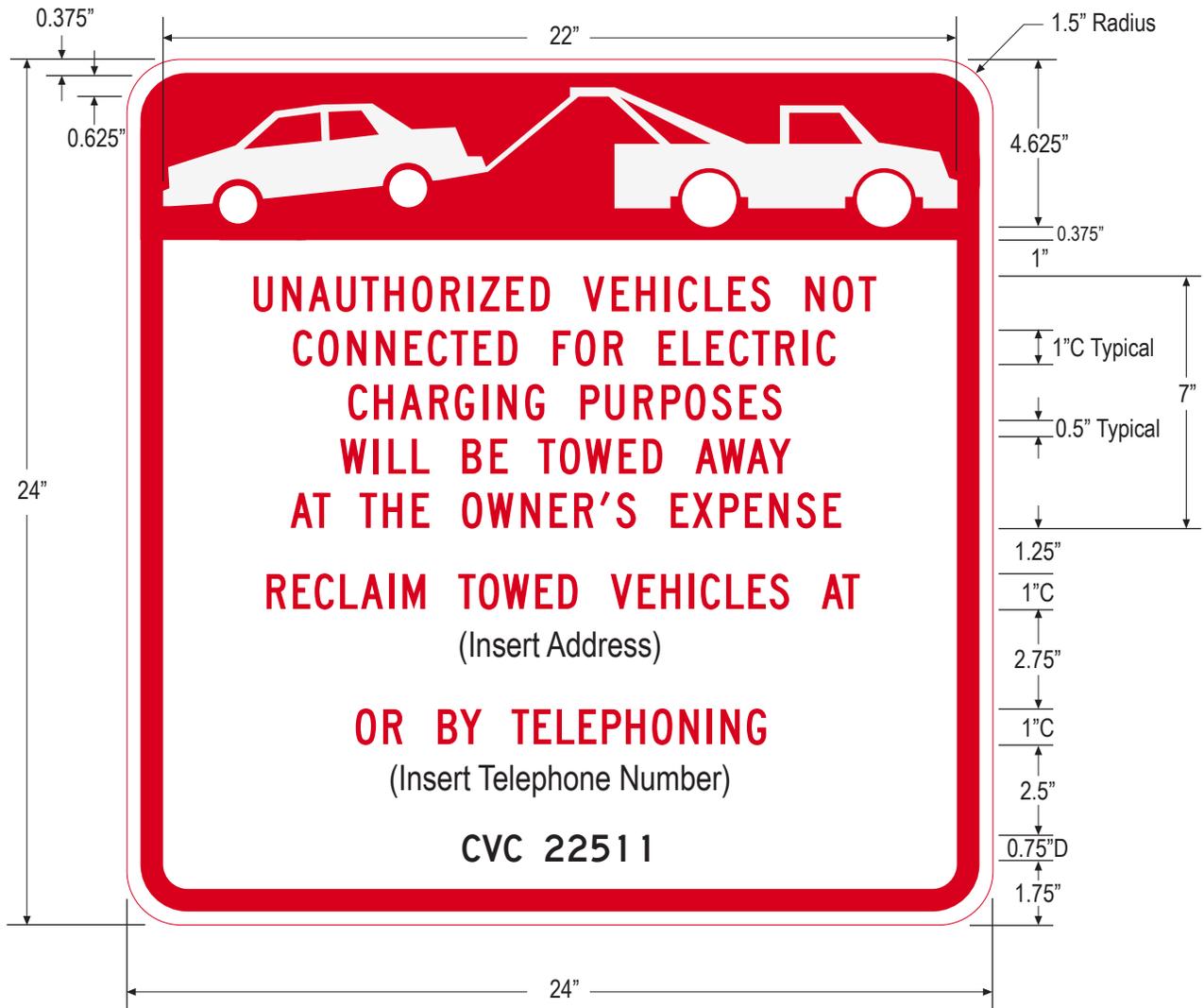
**Table 2B-1(CA). California Regulatory Sign and Plaque Sizes**

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Electric Vehicle Charging Station Tow-Away	R112(CA)	2B.46	*	*	-	-	24 x 24	-
No Parking EXCEPT FOR EV CHARGING	R113(CA)	2B.46	*	*	-	-	12 x 18	-
No Parking EXCEPT FOR ELECTRIC VEHICLE CHARGING	R113A(CA)	2B.46	*	*	-	-	12 x 18	-
__ HOUR EV CHARGING __ AM TO __ PM	R114(CA)	2B.46	*	*	-	-	12 x 18	-
__ HOUR ELECTRIC VEHICLE CHARGING __ AM TO __ PM	R114A(CA)	2B.46	*	*	-	-	12 x 21	-

\* Note: Electric Vehicle (EV) Charging Station regulatory signs are for off-street EV charging station use, per CVC 22511 and local ordinance.

**ADA Notice**

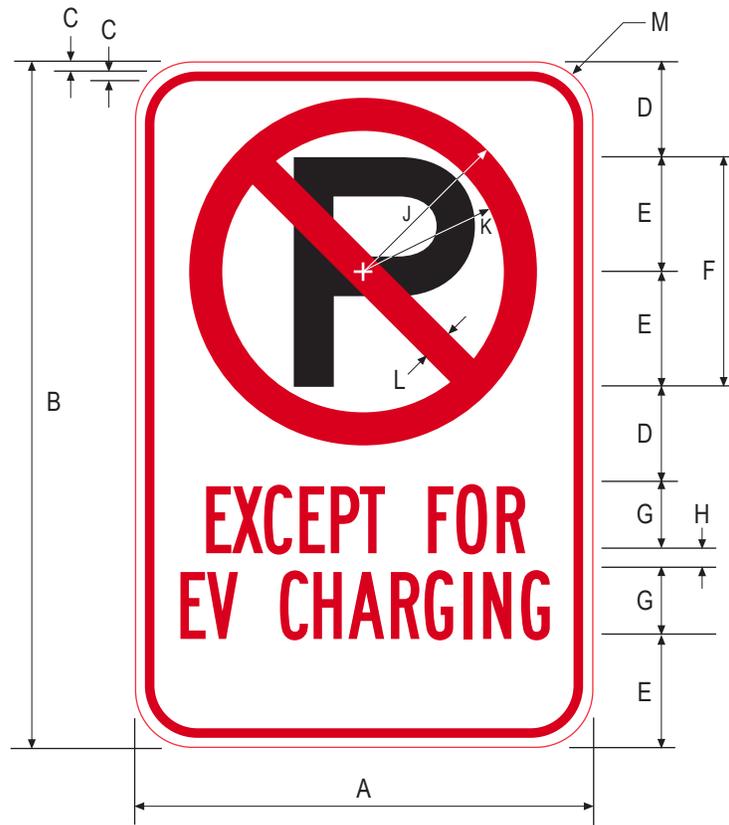
For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 653-3657 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS89, Sacramento, CA 95814.



**R112 (CA)**

NOTES: Specify address, telephone number, and optional CVC/ordinance information when ordering.  
 Use R107 GRID (CA) for TOW AWAY symbol.

**COLORS: BORDER & LEGEND - RED (RETROREFLECTIVE)**  
**BACKGROUND - WHITE (RETROREFLECTIVE)**  
**ADDRESS, TELEPHONE NUMBER, & OPTIONAL CVC/ORDINANCE LEGEND - BLACK**



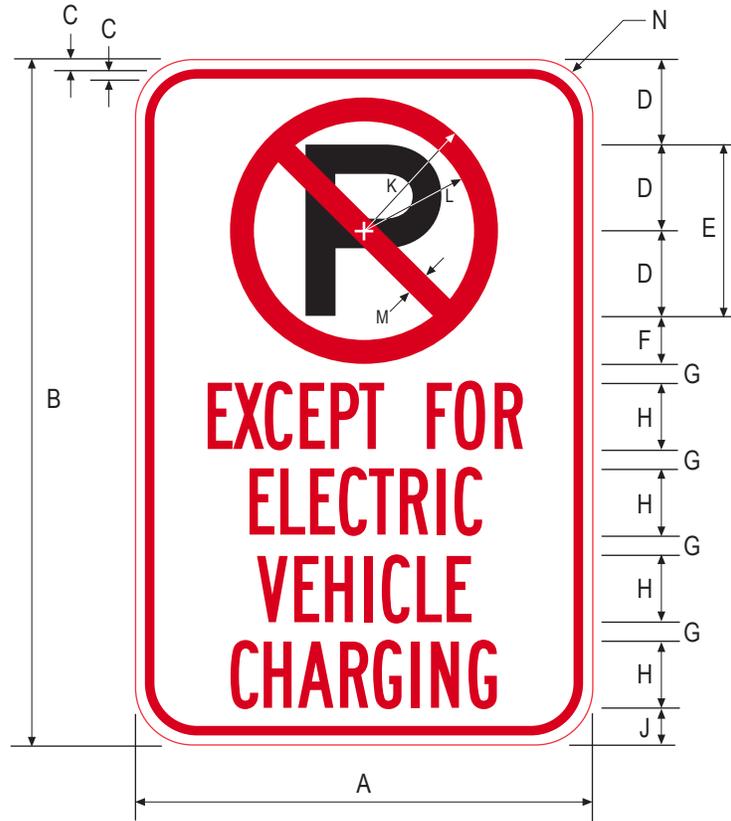
**R113 (CA)**

ENGLISH UNITS

A	B	C	D	E	F	G	H	J	K	L	M
12	18	.25	2.5	3	6E	1.75B	.5	4.5	3.625	.875	1.5

**COLORS: BORDER, CIRCLE, DIAGONAL & LEGEND - RED (RETROREFLECTIVE)**  
**LETTER - BLACK**  
**BACKGROUND - WHITE (RETROREFLECTIVE)**

3/14/13

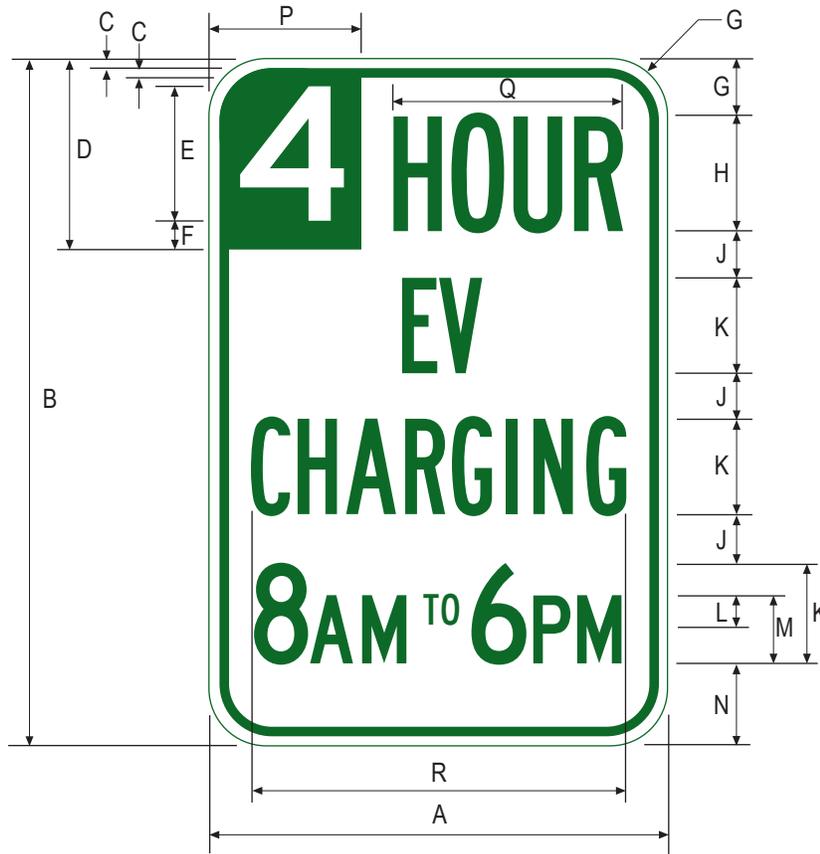


**R113A (CA)**

ENGLISH UNITS

A	B	C	D	E	F	G	H	J	K	L	M	N
12	18	.25	2.25	4.5E	1.25	.5	1.75B	1	3.5	2.875	.625	1.5

**COLORS: BORDER, CIRCLE, DIAGONAL & LEGEND - RED (RETROREFLECTIVE)**  
**LETTER - BLACK**  
**BACKGROUND - WHITE (RETROREFLECTIVE)**



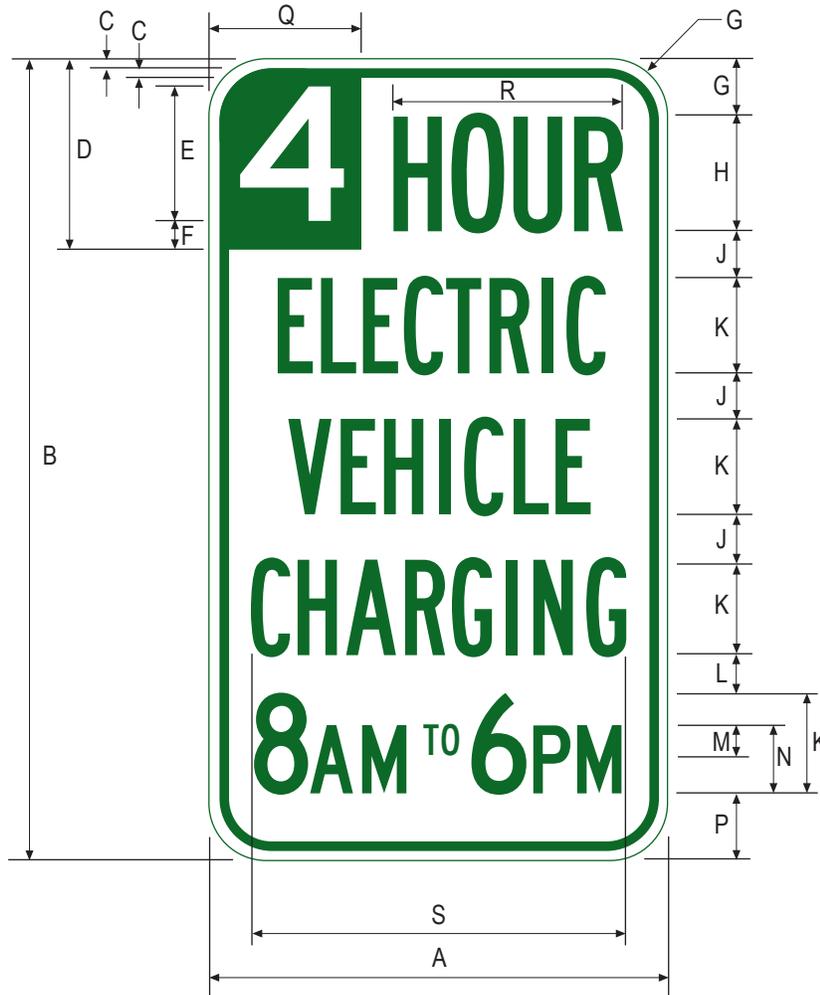
NOTE: Specify number of hours and times when ordering.

**R114 (CA)**

ENGLISH UNITS

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
12	18	.25	5	3.5D	.75	1.5	3B	1.25	2.5C	.75C	1.75C	2.25	4	6	9.75

**COLORS: BORDER & LEGEND - GREEN (RETROREFLECTIVE)  
BACKGROUND - WHITE (RETROREFLECTIVE)**



NOTE: Specify number of hours and times when ordering.

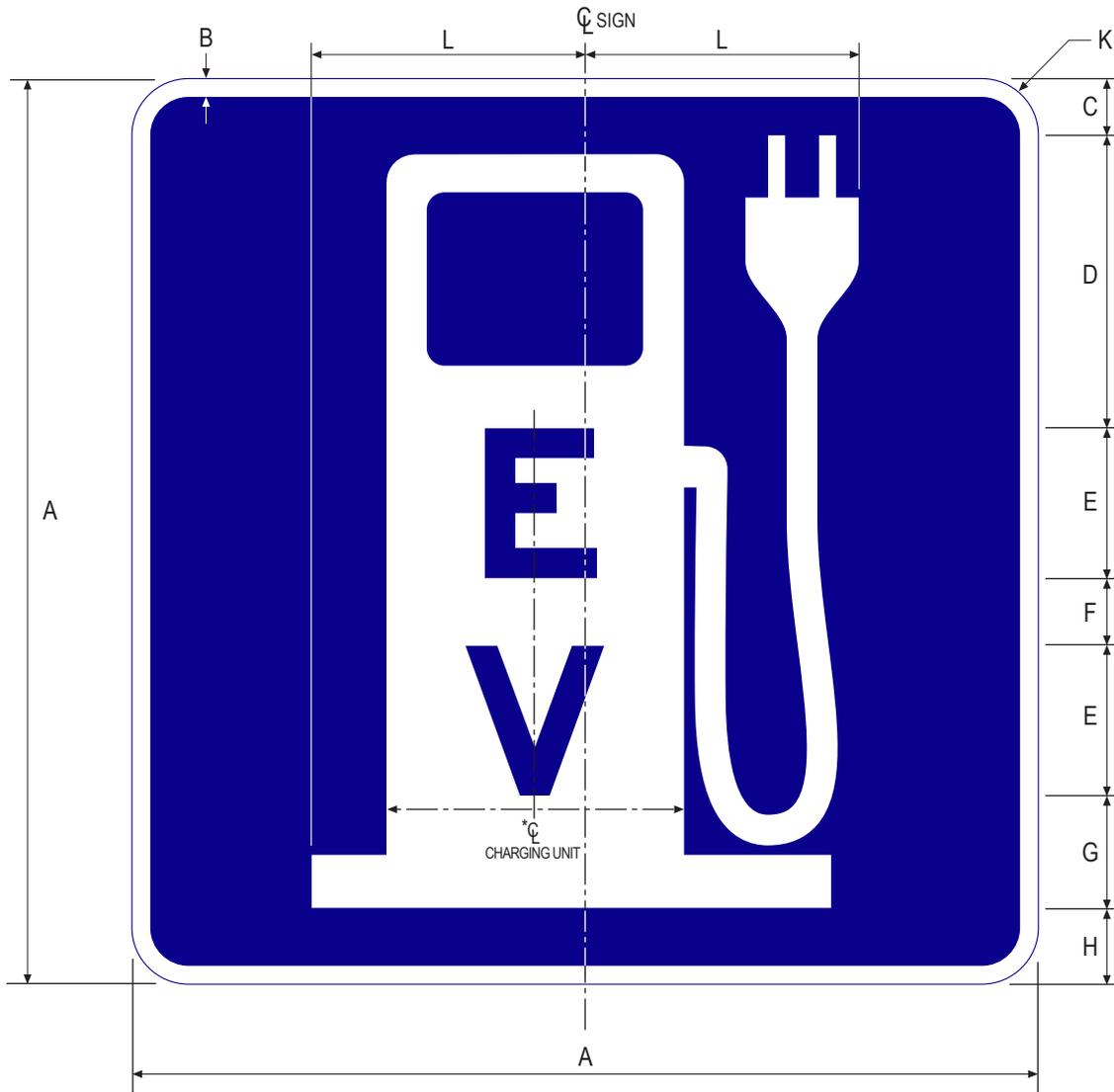
**R114A (CA)**

ENGLISH UNITS

A	B	C	D	E	F	G	H	J	K	L	M	N
12	21	.25	5	3.5D	.75	1.5	3B	1.25	2.5C	1	.75C	1.75C

P	Q	R	S
1.75	4	6	9.75

**COLORS: BORDER & LEGEND - GREEN (RETROREFLECTIVE)  
BACKGROUND - WHITE (RETROREFLECTIVE)**



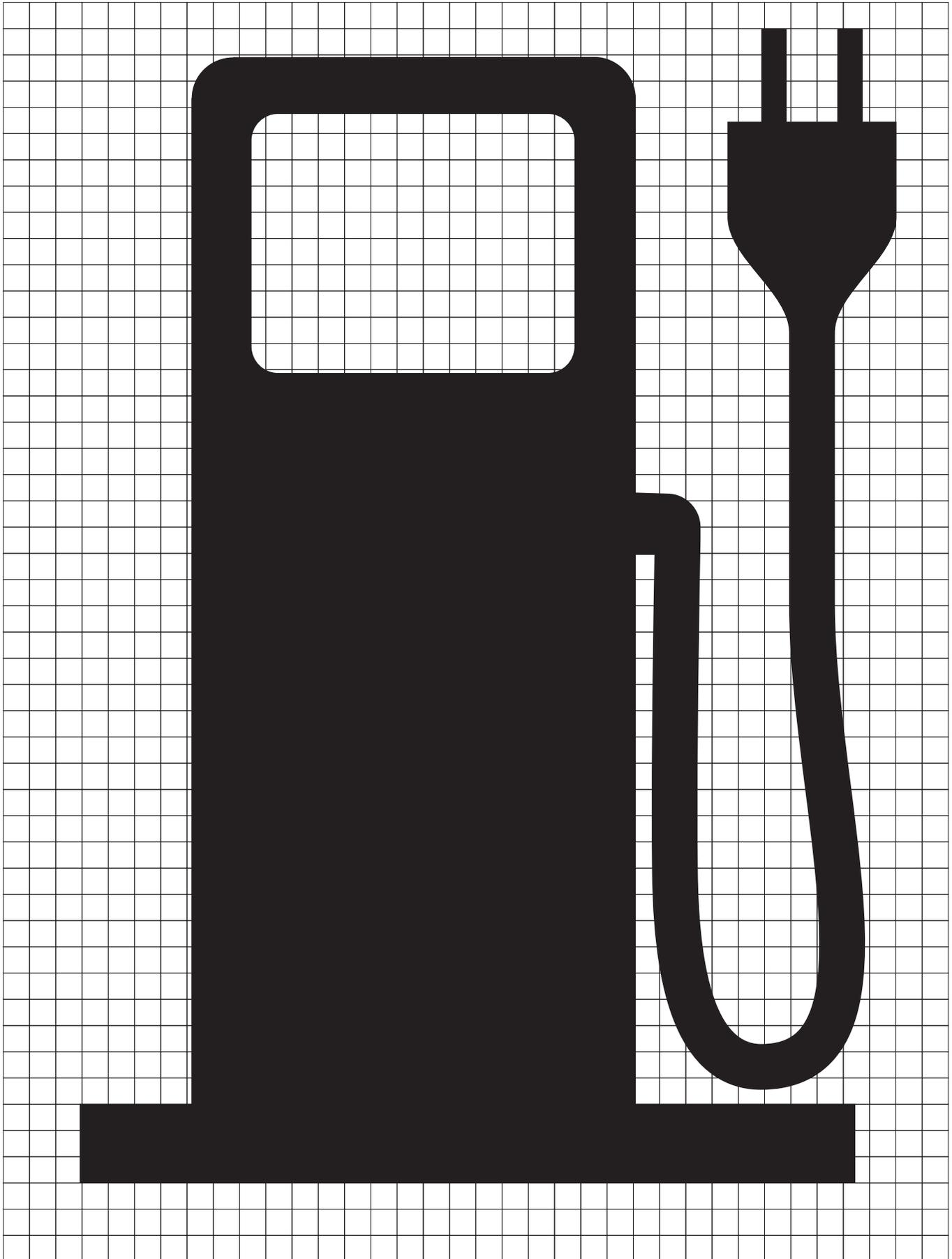
\* Optically space the "EV" letters vertically with the charging unit.

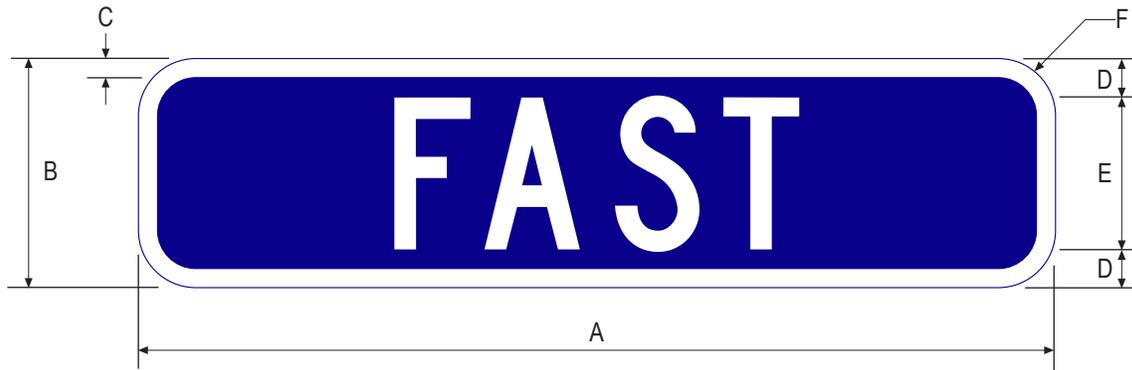
**G66-21B (CA)**

ENGLISH UNITS

A	B	C	D	E	F	G	H	J	K	L
12	.375	.75	3.875	2EM	.875	1.5	1	10.25	1.5	3.625
18	.375	1.125	5.75	3EM	1.375	2.25	1.5	15.375	1.5	5.1625
24	.5	1.5	7.75	4EM	1.75	3	2	20.5	1.5	7.25
30	.75	1.875	9.625	5EM	2	4	2.5	25.625	1.875	9.063

**COLORS: BORDER & SYMBOL - WHITE (RETROREFLECTIVE)  
 LEGEND & BACKGROUND - BLUE (RETROREFLECTIVE)**





**G66-21C (CA)**

ENGLISH UNITS

A	B	C	D	E	F
12	5	.375	1	3B	1.5
18	5	.375	1	3C	1.5
24	6	.5	1	4C	1.5
30	8	.75	1.5	5D	1.875

**COLORS: BORDER & LEGEND - WHITE (RETROREFLECTIVE)  
BACKGROUND - BLUE (RETROREFLECTIVE)**

Figure 3B-108 (CA). Electric Vehicle Charging Station Pavement Marking Details (Sheet 1 of 2)

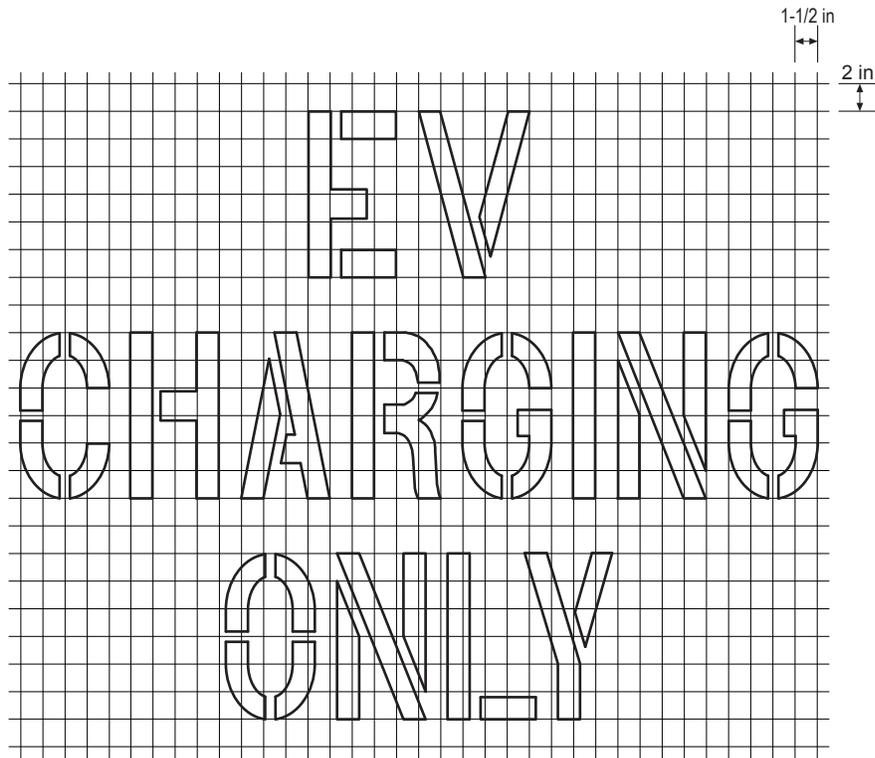


Figure 3B-108 (CA). Electric Vehicle Charging Station Pavement Marking Details (Sheet 2 of 2)

