

## **EVSP Accessibility Requirements**

Proposed by: Kimberly Paarlberg

### **502 Parking Spaces**

**502.1 General.** Accessible car and van parking spaces shall comply with Section 502.

**502.2 Vehicle Space Size.** Car parking spaces shall be 96 inches (2440 mm) minimum in width. Van parking spaces shall be 132 inches (3350 mm) minimum in **width**.

**EXCEPTION:** Van parking spaces shall be permitted to be 96 inches (2440 mm) minimum in width where the adjacent access aisle is 96 inches (2440 mm) minimum in width.

**502.3 Vehicle Space Marking.** Car and van parking spaces shall be marked to define the width. Where parking spaces are marked with lines, the width measurements of parking spaces and adjacent access aisles shall be made from the centerline of the markings.

**EXCEPTION:** Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

**502.4 Access Aisle.** Car and van parking spaces shall have an adjacent access aisle complying with Section 502.4.

**502.4.1 Location.** Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle. Access aisles shall not overlap with the vehicular way. Parking spaces shall be permitted to have access aisles placed on either side of the car or van parking space. Van parking spaces that are angled shall have access aisles located on the passenger side of the parking space.

**502.4.2 Width.** Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) minimum in width.

**502.4.3 Length.** Access aisles shall extend the full length of the parking spaces they serve.

**502.4.4 Marking.** Access aisles shall be marked so as to discourage parking in them. Where access aisles are marked with lines, the width measurements of access aisles and adjacent parking spaces shall be made from the centerline of the markings.

**EXCEPTION:** Where access aisles or parking spaces are not adjacent to another access aisle or parking space, measurements shall be permitted to include the full width of the line defining the access aisle or parking space.

**502.5 Floor Surfaces.** Parking spaces and access aisles shall comply with Section 302 and have surface slopes not steeper than 1:48. Access aisles shall be at the same level as the parking spaces they serve.

**502.6 Vertical Clearance.** A vertical clearance of 98 inches (2490 mm) minimum shall be provided at the following locations:

1. Parking spaces for vans.
2. The access aisles serving parking spaces for vans.
3. The vehicular routes serving parking spaces for vans.

**502.7 Identification.** Where accessible parking spaces are required to be identified by signs, the signs shall include the International Symbol of Accessibility complying with Section 703.6.3.1. Signs identifying van parking spaces shall contain the designation “van accessible.” Such signs shall be 60 inches (1525 mm) minimum above the floor of the parking space, measured to the bottom of the sign.

**502.8 Relationship to Accessible Routes.** Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

**502.9 Electrical vehicle charging stations.** Where an electrical vehicle charging station is provided at an accessible parking space, it shall comply with Section 502.9.

**502.9.1 Operable parts.** Operable parts on the charging station intended for operation by the user, including card readers, shall comply with Section 309.

**502.9.2 Accessible route.** An accessible route shall be provided from the access aisle adjacent to the accessible parking space to the clear floor space complying with Section 502.9.1 adjacent to the vehicle charging station. When the vehicle is being charged, the accessible route shall not be obstructed by the cable between the car and charging station.

**502.9.3 Obstructions.** Protection bollards, curbs or wheel stops shall be located so that they do not obstruct the clear floor space required by Section 502.9.1 or the accessible route required by Section 502.9.2.

**Reason:** I respectfully request that the ICC A117.1 committee review possible requirements for electrical vehicle charging stations. There is a safety standard being developed for these facilities (attached). Use of these stations are open to the public. Reports I have read predict that by 2020, the electric cars will perhaps be as many as 20% of new car sales. There are even electric cars specifically designed for persons using wheelchairs (see attached article from Austin newspaper).

There was a code change proposal this last cycle to IBC to require EVSP charging stations (E184-12). While this proposal was disapproved, there is the opportunity for scoping to be proposed to the IBC next cycle.

## **E184 – 12**

### **1106.6 (New)**

**Proponent:** Alan Manche, P.E., Schneider Electric representing self

**Add new text as follows:**

**1106.6 Electric Vehicle Charging.** Where electrical vehicle charging stations are provided, and more than 250 total parking spaces are provided, not less than one accessible space shall be served with an electric vehicle charging station. An electric vehicle charging station shall serve an additional accessible parking space for each additional 500 parking spaces or fraction thereof.

*(Renumber subsequent sections)*

**Reason:** Electric Vehicle Charging Stations are currently not location restricted and may not be located near an entrance providing accessibility. This code language seeks to provide electric vehicle charging for those with accessible needs that may choose to own

an electric or plug-in hybrid car. The 250 parking space trigger seeks to provide electric vehicle charging for those parking lots with a high probability of an electric vehicle visiting the location. It also seeks to ensure those needing accessible parking are able to use their electric vehicle without being challenged by the location of those chargers. It should also be noted that proper placement of an electric vehicle charging station can also provide charging for other than accessible parking spaces, hence the reason for using the term "serve."

**Cost Impact:** The code proposal will increase construction cost for large commercial facilities with a large parking space. The 250 parking space requirement limits cost impact to small business.

### **Committee Action: Disapproved**

**Committee Reason:** While accessibility to Electric Vehicle charging stations should be addressed in the code, the spirit of the ADA would require these stations for at least some of the accessible parking spaces whenever a facility choose to provide these charging stations for non-accessible spaces. The current requirements for LEED for the charging stations state that the stations have to be outside the accessible parking spaces. This possible conflict should be addressed.

When scoping requires accessible parking associated with EVSP charging stations, this will provide the technical criteria for the charging station and access to that station. This was developed after looking at guidelines set by Hawaii, California and New York. It includes basically access to the equipment and a route between the car and the station. I included card readers in the operable parts because California allows the height to be 54" in height, which is different from the reach range ICC A117.1 uses. The criteria for the access aisle and reach are the same as what is already required for accessible parking spaces and operable parts, so there is no need to repeat these requirements. There are other provisions in the California code, but they are dealing with general safety issues of the equipment, which will be covered within the EVSP standard. When the EVSP standard is finished, the ICC A117.1 committee may wish to reference it for the safety provisions similar to what we do for elevators and platform lifts.

Upon investigation of the different types of electrical cars on the market, at this time this is not a consistent location on the car where the plug in occurs. Therefore, orientation of the vehicle is not included in this proposal. I have attached pictures of charging stations and cars charging.