

ADA Requirements for Workplace Charging Installation



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Guidance in Complying with Americans with Disabilities Act Requirements



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Americans with Disabilities Act Requirements to Consider for Workplace Charging Installation

The ADA and Workplace Charging

The Americans with Disabilities Act (ADA) is a federal civil rights law that prohibits discrimination in public places against individuals with disabilities. As an employer installing plug-in electric vehicle (PEV) charging stations, also known as electric vehicle supply equipment (EVSE), you need to follow special design guidelines to accommodate people with disabilities, as required by the ADA. Although the ADA does not provide design standards for charging station-equipped parking spots, several industry studies and PEV planning guides do. In addition, several plans developed under the U.S. Department of Energy's (DOE) Clean Cities EV Community Readiness projects describe best practices for installing ADA-compliant charging stations.¹

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Best Practices for Designing ADA-Compliant PEV Charging Stations

When designing ADA-compliant PEV charging stations, consider accessibility, ease of use, and safety for disabled drivers, including those using wheelchairs or other assistive equipment. Key considerations include ensuring adequate space for exiting and entering the vehicle, unobstructed access to the EVSE, free movement around the EVSE and connection point on the vehicle, as well as clear paths and close proximity to any building entrances. The Colorado Electric Vehicle and Infrastructure Readiness Plan summarizes the ADA's most important requirements, as shown in the table below.²

Additional Resources

EV Charging for Persons With Disabilities, a standalone report funded by the Ohio and Virginia EV Community Readiness Plans, provides explanations of ADA standards and summarizes them using easy-to-follow diagrams.³ The Colorado Readiness Plan illustrates how a typical accessible parking space can be integrated alongside non-handicapped parking spaces as shown in the image below. The Plug-In Ready Michigan electric vehicle preparedness plan recommends that EVSEs are first installed alongside existing accessible charging spaces to ensure adequate wheelchair access and building proximity.

¹http://www1.eere.energy.gov/cleancities/electric_vehicle_projects.html

²P. 70, <http://denvercleancities.org/Colorado%20PEV%20Readiness%20Plan.pdf>

³<http://www.sustainabletransportationstrategies.com/wp-content/uploads/2012/01/EV-Charging-ADA-Version-1.0.pdf>

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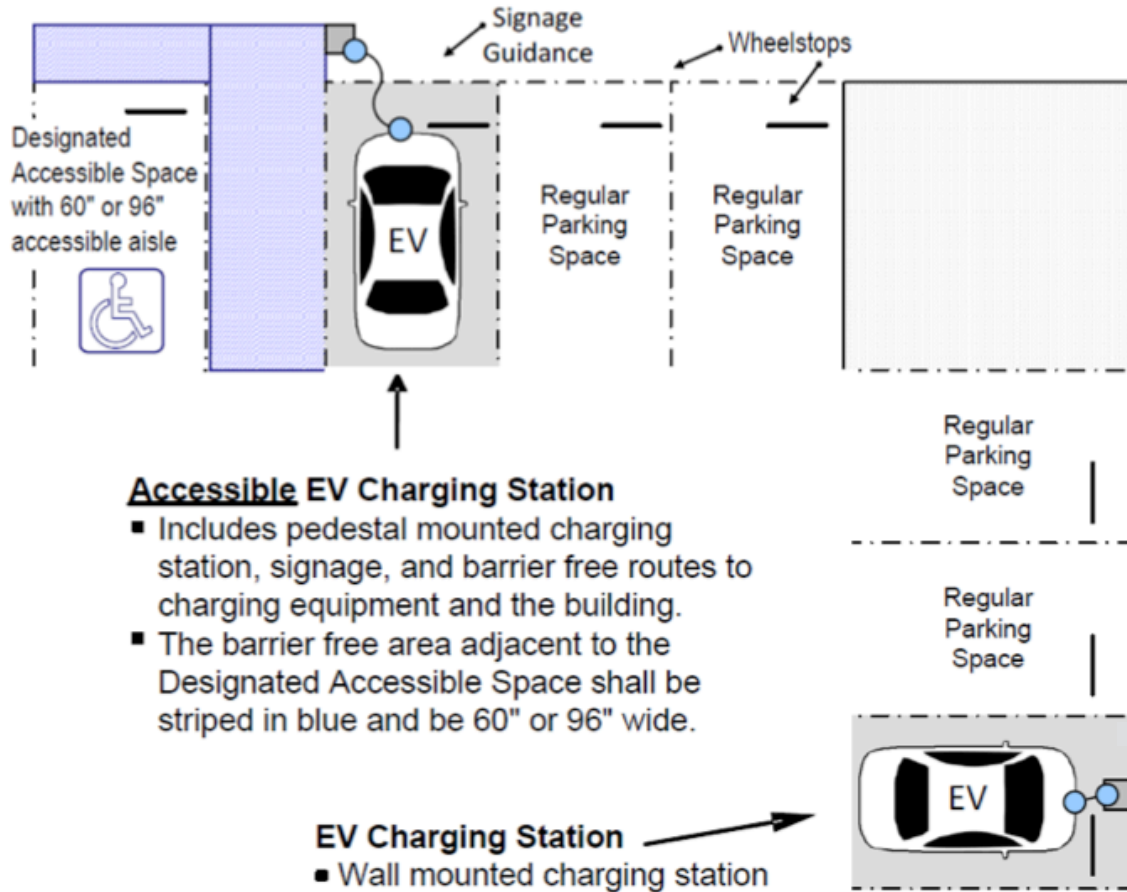
Summary of Important ADA Requirements

Element	ADA/ABA 2004 ANSI A117.1 2003
Number of Spaces	4% of parking spaces, or 1 for every 25 spaces, in any given lot, be designated as accessible; 1 out of every 6 spaces should be van accessible
Parking Stall	8x18 feet for a car and 11x18 feet for a van
Accessible Route Width	Minimum 36 inches wide
Accessible Route Slope/ Cross Slope	Maximum 1:20 (5%) running slope and 1:48 (2%) cross slope; Accessible vehicle spaces 1:48 (2%) in all directions and 90-inch clearance for vans
Reach Range	48 inches front and side to allow reach to all operable parts from a wheelchair
Accessible Controls	Operable with one hand and not requiring grasping, pinching, or twisting of the wrist or force more than 5 lbs. Exception: Gas pumps
Accessible Ramps	A ramp or curb-cut must be accessible in order to allow for operation of charging station
Facility Accessibility	Must be connected by a minimum of 50-inch-wide accessible route in proximity (not necessarily adjacent) to the entrance of the building
Side Access Aisle	Side access aisle of 60 inches wide to allow space for wheelchair and equipment in and out of space
Accessible Card Reading Devices	Must be connected by a minimum 50-inch-wide accessible route in proximity (not necessarily adjacent) to the entrance of the building
Other Considerations	Ensure that bollards, wheel stops, or curb do not obstruct use of charging station

Many states have developed their own standards in addition to ADA requirements. Consult your local governing authority when designing and planning your workplace charging stations. For more information on determining whether workplace charging is right for your organization and to learn about how to plan and implement workplace charging, consult DOE's Plug-in Electric Vehicle Handbook for Workplace Charging Hosts.⁴

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Typical ADA-Compliant PEV Charging Parking Space



⁴http://www.afdc.energy.gov/uploads/publication/pev_workplace_charging_hosts.pdf

Join the Workplace Charging Challenge

The U.S. Department of Energy is inviting employers to advance the deployment of plug-in electric vehicles by signing the Workplace Charging Challenge Pledge, a commitment to providing employee charging.

Learn more about the Challenge and how to join at electricvehicles.energy.gov.

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