



November 4, 2024

Submitted via *regulations.gov*

Office of General Counsel
U.S. Access Board
1331 F Street NW, Suite 1000
Washington, DC 20004-1111

Re: Architectural and Transportation Barriers Compliance Board, Notice of Proposed Rulemaking, Americans With Disabilities Act and Architectural Barriers Act Accessibility Guidelines; EV Charging Stations, ATBCB-2023-0001

The co-chairs of the Consortium for Constituents with Disabilities (CCD) Transportation Task Force write to comment on the notice of proposed rulemaking (NPRM) on electric vehicle (EV) charging stations. CCD is the largest coalition of national organizations working together to advocate for federal public policy that ensures the self-determination, independence, empowerment, integration, and inclusion of children and adults with disabilities in all aspects of society, free from racism, ableism, sexism, and xenophobia, as well as LGBTQ+ based discrimination and religious intolerance.

We thank the Access Board for proceeding with rulemaking on the minimum standards for EV charging stations. People with disabilities have been systematically and discriminatorily denied access to equal transportation. EVs are an emerging mode of transportation in the United States. However, without accessible charging stations, people with disabilities will continue to face significant barriers to yet another mode of transportation. Title II and III of the Americans with Disabilities Act (ADA) require EV charging stations to be accessible. Despite the ADA antidiscrimination requirements, too many EV charging stations are not constructed nor operated to be accessible. The lack of specific standards ultimately results in inaccessibility. The Access Board must expeditiously work with the U.S. Department of Justice and U.S. Department of Transportation to quickly promulgate and adopt regulations for universal accessibility.

However, we recommend the Board bifurcate the proposed standards from those that can be immediately adopt and implemented from components that may require further collaboration. The Access Board should expeditiously adopt certain regulations that can be immediately implemented, such as communication accessibility components, the number of accessible EV charging spaces, and connections to accessible routes. We urge the Access Board to promulgate

these standards. However, some mobility accessibility components of the charger may need additional collaboration with manufacturers, installers, operators, wheelchair users, and advocates to determine specifications that provide full and equal access for mobility device users.

There still remains significant accessibility issues with connectors, cables, and cable management systems that require collaboration with all stakeholders to ensure the standards can be implemented, yet still provide access for mobility device users. For certain mobility accessibility components of the accessible EV charging stations, the Access Board should convene working groups among all stakeholders to determine technically achievable standards that provide full and equal access. Even for these components, however, the general ADA requirements still apply - meaning that EV charging stations must be accessible for people with disabilities. The lack of specific standards does not exempt an entity from failure to comply with the ADA.

206/F206. Accessible Routes

As a whole, the EV charging station must be accessible – meaning the charger itself should be accessible and the individual has access to its built and surrounding environment. An EV charger should not be considered a standalone service. An individual with a mobility disability should have full and equal opportunity to access all local facilities and buildings. A charging station is equivalent to a parking space - a person often parks their vehicle to charge as they access the surrounding facilities. As with the 2010 ADA Standards for Accessible Design (“ADA Standards”) for accessible parking spaces, at least one accessible route should be provided from the accessible EV charger to the built environment, public rights-of-way, and accessible buildings or facilities.¹ Thus, all accessible spaces should be connected with accessible routes.

Question 1. The Board seeks input on the proposed number of EV charging spaces (four or fewer) which would exempt a site from reserving the accessible space for a person with a disability. Is there a reason to increase or decrease the proposed number of spaces?

In promulgating standards for accessible EV charging spaces, the Access Board should use the ADA Standards as a baseline, but consider the shortcomings of the current minimum number of accessible parking spaces. The current requirements do not meet the number of people with mobility disabilities. Furthermore, this issue will be compounded if exemptions are made for signage reserving accessible spaces. For example, approximately 12.2 percent of adults in the U.S. have a mobility disability.² With an aging population, the number of adults with a mobility disability is expected to increase as older adults have the highest rates of mobility disabilities.³

¹ 2010 ADA Standards, 206.

² Centers for Disease Control and Prevention, Disability and Health Data System, Disability Estimates, Mobility Disability (2022), available at <https://dhds.cdc.gov/LP?CategoryId=DISEST&IndicatorId=STATTYPE&ShowFootnotes=true&View=Map&yearId=YR7&stratCatId1=CAT1&stratId1=BO1&stratCatId2=&stratId2=&responseId=Q6MOB&dataValueTypeId=AGEADJPREV&MapClassifierId=quantile&MapClassifierCount=5>.

³ U.S. Census Bureau, American Community Survey, Disability Characteristics (2021), available at <https://www.pewresearch.org/short-reads/2023/07/24/8-facts-about-americans-with-disabilities/>.

The number of needed accessible parking spaces should be reconsidered according to the population's need. Furthermore, any installation of accessible EV charging spaces should not reduce the current number of accessible parking spaces without EV charging stations. With an extremely limited number of accessible parking spaces, people with mobility disabilities could inevitably be excluded from using EV charging stations with few or no open and operating accessible chargers.

249/F249. EV Charging Stations

249.3/F249.3 EV Charging Spaces

The number of accessible EV charging spaces should be similarly treated as accessible parking spaces – there should be a minimum number and a sliding scale based on the number of chargers or stations on a site. However, we again urge the Access Board to reconsider the number of required accessible EV charging spaces based on the need of the population. As discussed below, the Board should not adopt a “use last” model as an alternative to providing reserved accessible EV charger spaces. This concept is unworkable as members of the public may not understand the signage and enforcement is difficult, if not impossible.

The Board should consider each station separately and calculate the required number of accessible EV chargers based on the type offered. Not all EVs can be charged at all types of charging stations, for example, not all EVs can be charged with level 3 chargers. In addition, some EVs cannot be charged by a specific type of charger, such as a Tesla charger. A site could also install some EV chargers in one location and others at another location on the site, such as in the back of the parking lot versus closer to amenities or on different levels of a parking garage. If a site only provides accessible level 3 chargers, it could effectively exclude an individual from accessing the type of charger needed. In addition, on large sites, only having accessible EV chargers in one area could cause a person to not have access to other parts of the site. Because of just these factors, the Board should consider each station as separate for the needed number of accessible spaces.

249.3.2/F249.3.2 Location

We agree that all accessible EV charging spaces should be on the shortest accessible route similarly to accessible parking spaces. We also agree with an exception for the installation of accessible EV chargers in a separate location for substantially equivalent or greater accessibility in terms of distance from an accessible entrance or entrances. For example, a site may install an accessible EV charger closer to the accessible route, such as near standard accessible parking spaces, even if the non-accessible chargers are located in a further location. However, the inclusion of the exception for substantially equivalent or greater accessibility in terms of “fees” and “user convenience” is vague. This terminology should be removed from the exception. Thus, we recommend the Board include terminology that permits accessible EV charging spaces to be located on a site if “substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances,” but only if these spaces are clearly marked with proper signage indicating they are reserved solely for people with mobility disabilities.

C. Chapter 5: General Site and Building Elements

506. EV Charger

We agree with the universal requirement for communication access to ensure that a person with a disability who needs only communication access, and is ineligible to use an accessible space and accompanying EV charger, such as someone who is deaf or hard of hearing, can use any available EV charger. Additionally, if accessible communication features were restricted to the EV chargers associated with mobility accessible EV charging spaces, the number of accessible EV charging spaces needed, would greatly increase, as the proposed number of accessible spaces only accounts for mobility needs. Therefore, we agree with the Board's proposal for all EV charger user interfaces comply with accessible communication features in accordance with 709.

Question 2: The Board seeks public input on the approach of requiring 100 percent of EV chargers to have an accessible user interface.

It is most practical that 100 percent of EV chargers have accessible communication interfaces. Persons with other disabilities that are not physical disabilities may still use EVs. They may need a communication accommodation but not a physical accommodation. Consequently, it is appropriate to simply provide the communication accommodations for all EV chargers. Furthermore, the accommodation is likely to be built right into the infrastructure of the charger itself. For instance, the charger should include a large print screen with high contrast color schemes for persons who have low vision; an auditory output speakers paired with easy-to-press tactile button alternatives for persons who are blind or have print-related or reading disabilities; a screen with written text for persons who are deaf or hard of hearing; and other accommodations to enable people with other disabilities to use the charging devices. It seems impractical to develop two different charging devices, one with such accommodations and one without. The size is unlikely to be different, thus not requiring some kind of differing construction. Therefore, it seems most practical to install such chargers in 100 percent of the charging stations.

Additionally, with the expansion of technology, it is likely that EVs may become fully autonomous in the near future. This advancement in technology brings about the ability for persons with disabilities, who might currently be unable to drive or own a vehicle, to independently access and own a vehicle. Therefore, accessible chargers will be necessary for blind or low vision vehicle owners. It makes more sense to have a larger fraction, or 100 percent of chargers, to be accessible because as autonomous vehicles spread, persons with a plethora of disabilities will be traveling in the vehicles and will need accommodations at the charging station. In other words, the fraction of people using EVs with sensory disabilities is likely to grow as vehicles become autonomous and consequently available to more people.

506.2. Mobility Features

It is essential that all accessible EV chargers have clear ground space that meets the necessary scoping for a wheelchair or scooter user to access the charger with proper reach range. Currently, many EV charging stations are being installed on sidewalks or curbs that obstruct the ability to reach the charger or have insufficient ground space to physically access the charger. In considering the clear ground space and reach range, it is necessary to take into account any protruding objects or obstructions, such as curbs or parking bollards. It may be necessary to increase the clear ground space due to the placement of the EV charger. In addition, all accessible chargers must have an accessible path of travel from a parked vehicle to the charger. Notwithstanding any scoping specifications, as required by the general antidiscrimination requirements under the ADA, chargers must always be accessible for people with disabilities, which may require removal of obstructing objects or deliberate placement of the accessible charger. It is essential that there is a clear accessible path of travel from the point where an individual may enter/exit the vehicle to the charger and built environment. When there are multiple operable parts, there must be clear ground space to access each operable part, including a clear path of travel, without protruding objects or obstructions, from the entry/exit point of the vehicle itself.

Though the Board proposes charger controls be in accordance with unobstructed side reach, many chargers have obstructions, such as curbs or parking bollards. In addition, there are unique issues for EV chargers, specifically, how an individual must access the charger and maneuver the connector with a cable to the vehicle. The Board must consider the connector and the cable as a whole for technical specifications. Currently, level 2 and level 3 cables vary in weight. In addition, connectors vary widely. Furthermore, there continues to be developments in the type of connectors and cables. Operable parts should comply with the ADA and not require more than five pounds of operating force. However, to operate a charger, the connector and cable should be considered. We recommend that the Access Board convene working groups with manufacturers, installers, operators, wheelchair users, and advocates to determine which specifications for connectors and cables provide full and equal access for mobility device users.

The use of an EV charger is not equivalent to a gas pump. In general, the fuel lid for a vehicle is located in a similar location on one side of the vehicle. Gas pumps are accessed with a side reach and connected to the side of the vehicle. However, the location of the EV charging port vary significantly depending on the EV. For example, the charging inlet may be located near the driver side rear or front, passenger side rear or front, or in the front of the vehicle. A cable management system for an EV would not be operated similarly to a gas pump. Right now, few EV chargers use a cable management system. These systems may also require additional force as the connector may need to be tightly grasped as it is connected to the EV. In addition, the various weights of level 2 and 3 cables, plus the various types of connectors – different from standard gas station pumps – raise further concerns with universal requirements for cable management systems. We again recommend that the Access Board convene working groups with all stakeholders to determine which specifications for connectors and cables provide full and equal access for mobility device users. Nevertheless, until universal accessibility standards can be promulgated, the ADA applies and chargers must be accessible for people with disabilities.

507 EV Charging Spaces

507.1 General

507.2 Size of EV Charging Space

We agree with the Board that all accessible EV charging spaces should have sufficient clearance for both cars and vans instead of proposing different sizes respectively. With a universal design for accessible spaces, either type of vehicle can use the space. Nonetheless, all measurements must ensure that there is clear space to the charger and an accessible route from the entry/exit point of the vehicle to the charger, including clearance from any parked vehicles. In the consideration for any exceptions, there must be sufficient accessible, clear paths from any entry/exit point of a vehicle, to the charger, and space to operate the connector and cable. This clearance must also include spaces designated for adjacent parked vehicles.

Inductive Charging

Even with inductive charging, the parking space must have sufficient clearance and access aisles for an individual to enter and exit the vehicle. The type of charger should not determine access to accessible paths to local amenities and facilities. We agree with the Board that EV chargers must be considered in the entirety of the built environment. EV chargers are not a standalone service. Chargers are often placed near amenities or facilities that an individual can access while their vehicle is charging. With all scoping requirements, the Board must consider the equal opportunity for a mobility device user to access local amenities. As inductive chargers are still under technological development, further conversations may need to occur with manufacturers, installers, operators, wheelchair users, and advocates to determine proper scoping for equal access to the entire built environment.

507.3 Access Aisle

It is critical that all access aisles be sufficiently marked so that they are available for use. An access aisle ensures that there is sufficient space and that the access aisle is designated for the sole use for entry, exit, and use of the charger by a mobility device user. Furthermore, access aisles must always be clear of obstructions. When an access aisle is blocked, by another parked vehicle or another obstruction, it does not provide for entry/exit to the vehicle and access to the charger.

507.4. Floor or Ground Surfaces

We agree with the Board's proposal that EV charging spaces and access aisles comply with 302, which requires floor and ground surfaces to be stable, firm, and slip resistant. In addition, accessible EV charging spaces and the adjoining access aisles must be at the same level and level changes should not be permitted, unless an exception applies. If the spaces and access aisles fail to comply with 302 or have level changes, then the surface alone could render the spaces inaccessible. With any exceptions, the Board must determine whether the exception still provides full access to the EV charger, including access to the charger itself; connecting the charger to the

vehicle, considering the varying locations of the charger ports; access aisles; accessible paths of travel; clear floor or ground space; and access to all local amenities.

507.6 Identification

As with parking spaces, all accessible EV charging spaces must be identified with the ISA at the specified height. However, as discussed below, the Board should not adopt a “use last” model as an alternative to providing reserved accessible parking spaces. This concept is unworkable as members of the public may not understand the signage and enforcement is difficult, if not impossible.

507.7 Relationship to Accessible Routes

It is essential that charging spaces and access aisles be designed so charging vehicles do not obstruct adjacent accessible routes. These designs should apply to the entirety of the built environment from the charger to any accessible routes, entrances, and facilities.

D. Chapter 7: Communication Elements and Features

709. EV Charger Communication Elements and Features

Many EV chargers have an electronic user interface and are similar to smart parking meters or fare vending machines. EV chargers that provide an electronic user interface must be accessible to and usable by people with disabilities. Accessible communication features enable people who are deaf or hard of hearing, people with vision impairments (but who drive), and other people with disabilities to use an EV charger. As noted above, the Access Board is proposing that all EV chargers provide accessible communication features and comply with 709, except that 709.3.1 will apply only to EV chargers with mobility features complying with 506. As explained below, 709.3.1 ensures that display screens are located at a height to be visible to a person sitting in a mobility device. We also recommend that regulations include the addition of a tactile keypad or raised buttons to assist in the navigation and control of the display.

Many of the requirements for communication proposed in this NPRM are similar to the provisions in the Access Board's Revised Section 508 Standards.⁴ The Access Board must emphasize that this proposed rule does not excuse full compliance with Section 508 of the Rehabilitation Act with respect to the communication features of any EV charging stations procured, maintained, or used by the federal government. The Revised 508 Standards are more stringent than the proposed communication features in 709, and compliance with the Revised 508 Standards would ensure compliance with section 709 of this proposed rule.

709.2. Volume

⁴ See 36 CFR 1194.1, A pp. A & C.

We agree with the Board's proposed 709.2, that all EV chargers that deliver sound provide volume control and output amplification. For private listening, the EV charger should provide a mode of operation to control the volume. For non-private listening, the EV charger should include incremental volume control with output amplification up to a level of at least 65 dB and a function should be provided to automatically reset the volume to the default level after every use.

In addition to volume controls for display screens at charging stations, each unit with the digital display screen must also provide a means of private listening. Many fare vending machines, airport check-in kiosks, and all ATM machines at banks have a place for a user to plug in headphones that they provide themselves to facilitate private listening. Units must also indicate both visually and tactilely the location of the headphone jack and volume controls. This can be done by labeling, both in raised print and in braille, and by using a contrasting color around the jack itself.

709.3. Display Screen

We agree with the Board's proposal that display screens on EV chargers associated with accessible EV charging spaces be visible from a point located 40 inches above the center of the clear ground space in front of the EV Charger to ensure the display screen is visible from a seated position in a mobility device. Furthermore, we agree that all EV charger display screens provide at least one mode of characters displayed on the screen in a sans serif font, and that if the EV charger does not provide a screen enlargement feature, characters must be 3/16 inch high minimum based on the uppercase letter "I". Additionally, characters must contrast with their background with either light characters on a dark background or dark characters on a light background.

709.4. Status Indicators

We agree that, where provided, status indicators should be visually discernable and discernable by touch or sound. For example, if the EV charger makes a sound to indicate charging is completed, then it should also provide a visual notification.

709.5. Color Coding

We agree that color coding cannot be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element. For example, a light that is illuminated red while the vehicle is charging and then turns green when the charge is complete cannot be the only means of informing the user that the charge is complete.

709.6. Audible Signals

We agree that audible signals or cues should not be the only means of conveying information, indicating an action, or prompting a response. Information conveyed with an audible signal must also be conveyed visually or with a tactile indication if appropriate.

709.7. EV Charger With Two-Way Communication

EV chargers that provide a method of two-way communication, such as the ability to call a help desk or video chat with a representative, should provide an accessible means of communication for individuals who are deaf or hard of hearing, such as captioned calls, an alternative phone number, and direct video calling for ASL users. In addition, the EV charger must also provide a method to increase volume of received audio. If the EV charger delivers output by a handset or other type of audio transducer that is typically held up to the ear, then the EV charge must reduce interference with hearing technologies; provide a means for effective magnetic wireless coupling; and conform to TIA-1083-B.

709.8. Caption Processing Technologies

We agree that where an EV charger displays or processes video with synchronized audio, captioning of the audio should be provided. For example, if a video of instructions on how to use the EV charger is provided with accompanying audio, the audio must be captioned. In addition to ensuring that display screens and two-way video communications are accessible to deaf and hard of hearing individuals with captions and ASL interpretation capabilities, any interface using two-way communication must be operable to users who are blind or have low vision. There must be clearly visible buttons to both activate and deactivate the video stream, and anyone using audio-based navigation on the screen must be able to navigate to the same activation or deactivation buttons.

VI. Use Last Model for EV Charging Spaces

The Board should not adopt a “use last” model as an alternative to providing accessible EV charging spaces. This concept is unworkable. First, members of the public may not understand this signage. Second, the “use last” model would be difficult, if not impossible to enforce. In many jurisdictions, there is not sufficient, or any, enforcement for individuals parking in an accessible parking space who do not have necessary placards or decals. To enforce the “use last” mode, enforcement would be compounded by requiring evidence that the space was the last one available at the time the person parked. Charging an EV with a level 2 charger may take 4-10 hours.⁵ Especially with the lengthy timeframe that a vehicle may be parked in the space, it would be nearly impossible to prove that the accessible space was the last one available. Without sufficient enforcement for standard accessible parking space requirements alone, the “use last” model should not be adopted as an alternative.

Sincerely,

Consortium for Constituents with Disabilities Transportation Task Force Co-Chairs

⁵ U.S. Department of Transportation, Charger Types and Speeds, *available at* <https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>.

Tyler Beck, Manager, Federal Relations & Policy, Epilepsy Foundation

Danica Gonzalves, Senior Advocacy Attorney, Paralyzed Veterans of America

Sarah Malaier, Senior Advisor, Public Policy and Research, American Foundation for the Blind

Swatha Nandhakumar, Advocacy and Outreach Specialist, American Council of the Blind

Claire Stanley, Director of Advocacy and Governmental Affairs, American Council of the Blind