Community Energy Association

A Policy Planning Companion for Local Governments

Accessible Electric Vehicle (EV) Charging Stations

Design Guidelines and Siting Criteria

October 2025

AT A GLANCE

As more EV chargers have been deployed over the past decade, installation best practices have become more comprehensive. Today, both Level 2 and Level 3 EV charging sites should be designed to ensure all drivers and users can conveniently access stations. Ideally, all new charging infrastructure installations should follow a standardized design approach. This would improve the user experience while ensuring that small but important considerations are not overlooked.

This document references published guidelines and resources that may be particularly helpful to local governments as they plan accessible EV charger installations and summarizes the top considerations.

KEY TAKEAWAY

Expectations for EV charging installations have evolved considerably over time, making it essential for those coordinating these projects to integrate accessibility best practices from the outset. Failing to do so represents a missed opportunity to promote inclusion and could lead to costly upgrades.

Contents

Introduction

Organizations across BC are researching and documenting design guidelines for EV charging infrastructure, addressing key considerations for both Level 2 and Level 3 installations, and specifically noting the need to design and install charging infrastructure that can be used by everyone.

In British Columbia, the *Accessible British Columbia Act*[1] defines accessibility as "enabling all people to participate fully and equally in their communities through work, recreation, and daily activities." This concept focuses on removing barriers and promoting inclusion and independence, particularly for individuals with disabilities. Further, the Canadian Standards Association details seven key principles for accessible/universal design[2]:

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

Common accessibility concerns as it relates to EV charging infrastructure and site design include:

- Protective bollards that are too close to one another so that a wheelchair or other mobility device cannot maneuver through the space to use the charging station.
- Surfaces are not paved, making it difficult or impossible to traverse in a mobility device.

[1] https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/21019
[2] https://otc-cta.gc.ca/eng/standards-and-guidelines-accessibility-additional-references

- Chargers are elevated on a concrete pad making it difficult to reach the screen and maneuver the charging cords.
- Parking stall dimensions are too narrow.
- Charging equipment does not incorporate accessible design into their screen, charging holster or cable management.
- No weather protection resulting in non-trafficable or slippery surfaces.
- Obstacles like curbs, trees, and bollards block pathways for maneuvering around the car and charging equipment.

As local governments and self-governing communities undertake EV charger installations, project managers should ensure that all stakeholders—such as planning, engineering, facilities, and operations teams—are familiar with best practices. Beyond internal stakeholders, project managers should also engage supporting trades to ensure they are well-versed in accessible EV charging design concepts. This includes considerations for civil works, utilities, concrete preparation, and more.

The 2022 report, *Charging Ahead: Ensuring Equity and Reliability in Canada's Electric Vehicle Network*, published by the CSA Group's CSA Public Policy Centre includes recommendations for those funding and installing EV charging stations to prioritize accessibility at the outset. The report notes that, "when policies, programs, and physical infrastructure are designed to accommodate those facing the most significant barriers: it benefits everyone." (pg. 23)

Key Resources

EV Fast Charging Design and Operational Guidelines: for public fast charging stations in British Columbia

Author: **BC Hydro**

Status: **Published February 2024**

Summary: BC Hydro has been piloting and deploying EV fast charging stations since 2013. The document offers guidance to groups—such as municipalities, property owners, and engineering firms—on planning, designing, constructing, and operating public charging stations. It covers topics like site selection, technical design parameters, equipment choices, cost and revenue modelling, and long-term operations and maintenance. The guidelines emphasize creating a reliable, user-friendly charging experience (e.g. accessibility, clear signage, uptime) while balancing capital and operating costs over a 10-year horizon.

Capital Region Public Electric Vehicle Charging Guide

Author: **Developed for the Capital Regional District (CRD) by a consulting team made up of WATT Consulting Group, Introba, and Origin**

Status: **Published February 2023**

While this guide intended primarily for businesses, property owners, and local governments within the capital region area, much of its content is relevant to groups outside of that geographic region. The guide includes a step-by-step process for project planning, design, permitting, construction, and operations. It also outlines design guidelines tailored to common site archetypes (e.g., large parking lots, underground garages, on-street) with recommendations on accessibility, signage, layout, load sharing, and future expansion. Additionally, it describes funding programs, rebate opportunities (federal, provincial, municipal as of the date of publication), and metrics for evaluating network performance.

Streamlining Public EV Charging Regulations & Approvals: Local Government Toolkit

Author: **Developed for the EV Charging Process Streamlining Project Advisory Committee by Dunksy with funding from BC Hydro.**

Status: **Published, September 2025**

This toolkit provides municipal staff with a recommended approach to navigate requests from EV charging proponents or developers who want to build public EV charging stations. It provides guidance on how to streamline responses to these requests. Within this context, it includes guidance on how processes can avoid adverse impacts to accessibility (pg. 23).

Commercial Curbside Electric Vehicle Charger Program Guidelines, Section 5.2

Author: **City of Vancouver**

Status: **Published, updated April 2023**

The document sets the framework for how the City of Vancouver will evaluate, approve, permit, and license private (commercial) curbside EV charger installations on city property. The content and technical requirements (e.g., tree and utility coordination, licensing terms, permitting fees, etc.) are tailored to Vancouver's context, but many of the constraints (right-of-way width, sidewalk design, conflict with utilities, permitting processes) are common across cities, so other local governments could adapt these design standards, permitting workflows, and licensing agreement structure to their own community.

Section 5.2 (pg. 8) provides specific accessibility requirements to consider such as charger orientation, card reader height, and cable height.

Program Guide for CleanBC Go Electric Public Charger Program

Author: **Province of BC, distributed through Plug In BC**

Status: **Published, updated May 2025**

While the CleanBC Go Electric Public Charger Program is currently closed (as of June 2025), the program guide includes a section related to installation site requirements which has some useful specifications related to accessibility (pg. 7). For example, chargers installed with funding through the program must be installed with a space of at least 1.2 m between any protective bollards in front of the charger, such that they do not obstruct interface (i.e. screen and/or controls).

Fully Accessible EV Charging - BCIT

Author: **BC Institute of Technology**

Status: **In development**

BCIT conducted research through 2024 to, "identify ways to enable [persons with disabilities] to participate in creating a positive change and to enjoy the benefits of sustainable and healthy practices through full and equitable access to EV infrastructure." It included an extensive review of national and international accessible EV charging guidelines and resulted in a report that was a project for CSA Group. The report is now the key reference to help inform a CSA Group guidance document. CSA Group has recently formed a task force to work on this deliverable although it is anticipated it will take some time to review the document and publish a final report.

The U.S. Access Board, an independent federal agency in the USA, published *Design Recommendations for Accessible Electric Vehicle Charging Stations* in 2023. It is a technical document to assist in the design and construction of EV charging stations that are accessible to and usable by people with disabilities. While the document refers to regulations and standards that are specific to the USA, the online resource includes many helpful graphics of accessible EV charging station design elements.

EV Charging Accessibility Checklist

The following list summarizes accessibility requirements and best practices for EV charging stations based on the resources linked above. Consult any relevant municipal, provincial or federal accessibility codes and guidelines as they are being updated regularly.

Site Design and Layout

- Curbless, level surfaces at stations. Any concrete pad should be level with surrounding area, or a ramp installed.
- Accessible pathways with 1.2 to 1.7 metres clearance between obstacles such as bollards.
- Minimum one accessible parking stall per site. Refer to local guidelines for minimum width requirements, often around 3.7 metres.
- Adequate lighting for visibility and safety.
- Weather protection where possible.

Charger Equipment

- Screens, payment terminals, and buttons mounted < 1.2–1.3 m from ground.
- Cable management systems to reduce lifting and pulling effort.
- Reach ranges suitable for wheelchair users.
- Visual contrast on screens and buttons.
- Auditory or tactile feedback options where possible.

Payment & User Access

- At least one payment method available that does not rely on mobile apps.
- Charging sessions should not be interrupted if payment issues occur.
- Stations must display clear signage with instructions, contact info, and rates.
- Multilingual and accessible signage encouraged.

Maintenance

- Processes and policies to ensure stations are cleared of snow and debris, and any vegetation is trimmed or pruned to ensure ample space around the stalls and chargers.
- Feedback mechanisms to report accessibility issues.

Other EV Charging Site Considerations

Site Selection

Evaluate the suitability of the location as it pertains to electrical capacity, technical requirements, proximity to amenities, visibility, scalability, user-demand, and other community-oriented goals.

Safety

Consider the driver's experience as they arrive at the station, use the charger, come and go from nearby amenities. Lighting and other security features (e.g., cameras) can result in a positive experience and result in a driver returning to a station again.

Protection

Take measures to safeguard the charger, users, and surrounding infrastructure from physical damage, electrical hazards, environmental conditions, and unauthorized use. Effective protection ensures the reliability, safety, and longevity of the EV charging station.

Etiquette/Signage

Install clear signage, guidelines and best practices that ensure fair, respectful, and efficient use of the charging station. Good etiquette promotes a positive user experience, reduces conflicts, and maximizes charger availability for all EV drivers.

Ensure signage includes the address of the station and a feedback mechanism to report any issues or maintenance needs.

Wayfinding

EV chargers can sometimes be tricky to find or difficult to spot while driving, especially for visitors. Installers can support access to and awareness of nearby chargers by installing strategically placed universal EV charging signage and arrows.

Maintenance

Keep the site and surrounding area clear of obstacles, garbage, snow, etc. Create and operationalize processes and policies that ensure regular maintenance is performed and charging stations are added to annual maintenance protocols.

Peer Network Key Learnings

CEA inquired with members of the BC Hydro Local Government Electric Mobility Peer Network as to the key lessons learned from their experiences with designing and siting EV charging infrastructure in their communities. Here's what we heard:

- "Ensure the design is comprehensive. Don't forget about the little details such as landscaping upon install completion."
- "Plan for long development approval timelines."
- "Charging infrastructure doesn't need to be sited next to the main entrance where accessible parking is in high demand."

- “Don’t forget to do costing for the smaller but important items, e.g., adequate signage, parking stall line painting, etc.”
- “Complete feasibility studies in advance of large infrastructure projects.”
- “Engage early with Vancouver Island Strata Association or Condominium Home Owners Association of BC when planning for infrastructure in stratas.”