Xeal Energy

EV Charger Installation Standards Guide

Guide Overview

- Installer bid standards
- Xeal charger height for wall mounting
- Xeal pedestal orientation and charger installation
- Xeal Stencil guide and requirements
- EV charger signage
- Xeal charger ADA guidance



Xeal Installer Bid Standards:

As a turnkey EV charging company, Xeal shares our installation partners' bids directly with the client.

In our experience, projects are most successful when Xeal receives detailed construction bids. To ensure mutual success, Xeal requests the following items be included in each bid:

Should any of these requirements be unable to be met within 5 business days of the site walk, please consult with your Xeal EV Implementation Manager.

Please see our installer bid requirements below:

1. Bid with detailed line item pricing, which includes but is not limited to:
    - All invoice terms should be directed to Property Manager and specify site location
    - Electrical Work – Panel upgrades, circuit breaker additions
    - Civil Work – Trenching (distance included), patchwork, coring
    - Materials – Bollards, paint, stenciling
    - Project Management and Permitting Costs (if applicable)

2. Site Design Information
    - Marked up as-builts or satellite images, as available
    - Pictures/videos of parking stalls, panel schedules, main distribution panel, that outline proposed project location and power configuration
    - One-Line diagram
    - Xeal spec sheet

3. Permit / New Service Information
    - List Authority Holding Jurisdiction and include permitting costs

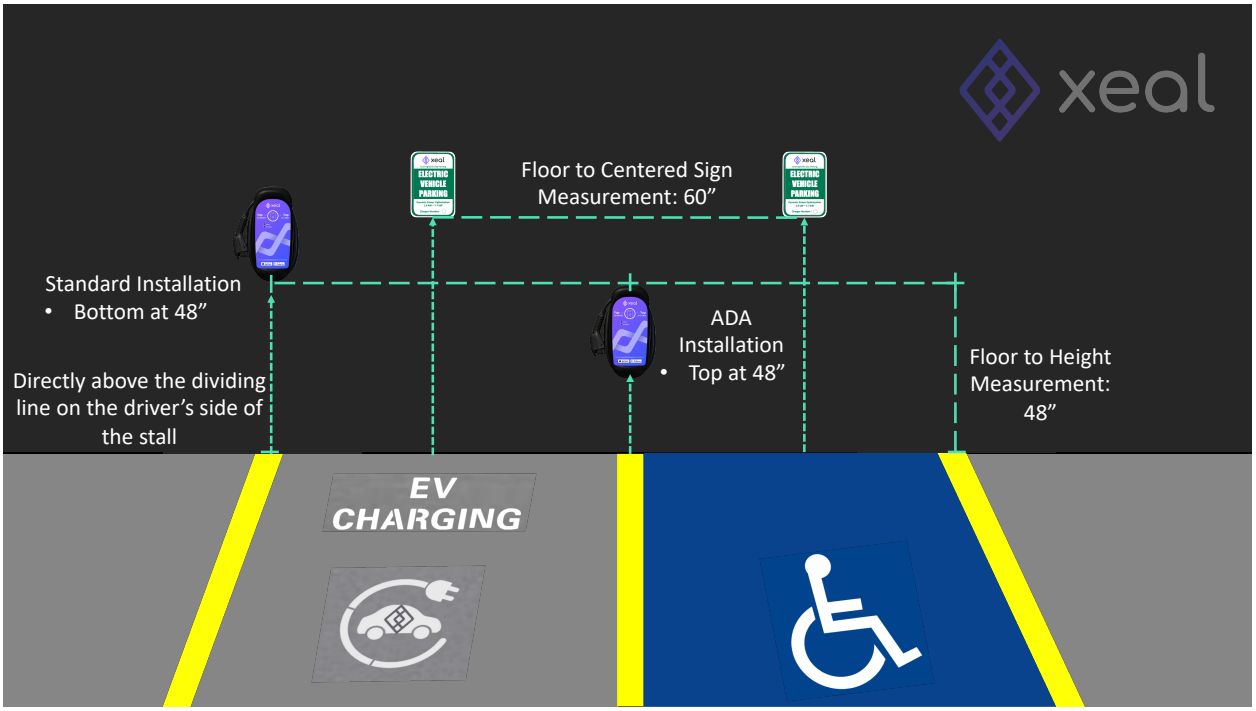
4. Items Needed for Mobilization
    - Please share all required documentation to accept bid

An example of an installation bid that meets these standards can be accessed here.

Charger Design and Placement

Place single chargers in between the parking stalls. This decreases the chance for a collision and allows easier access for two parking stalls to use the charger. The general rule is that the charger intended for the stall is located on the driver side front corner. All chargers placed in a row must be at the same height. The base of the charger (bottom) should be placed no lower than 48" from the ground for non-ADA accessible stalls. If this cannot be met at the parking location another location must be chosen, or the charger will need to be mounted on a pedestal.

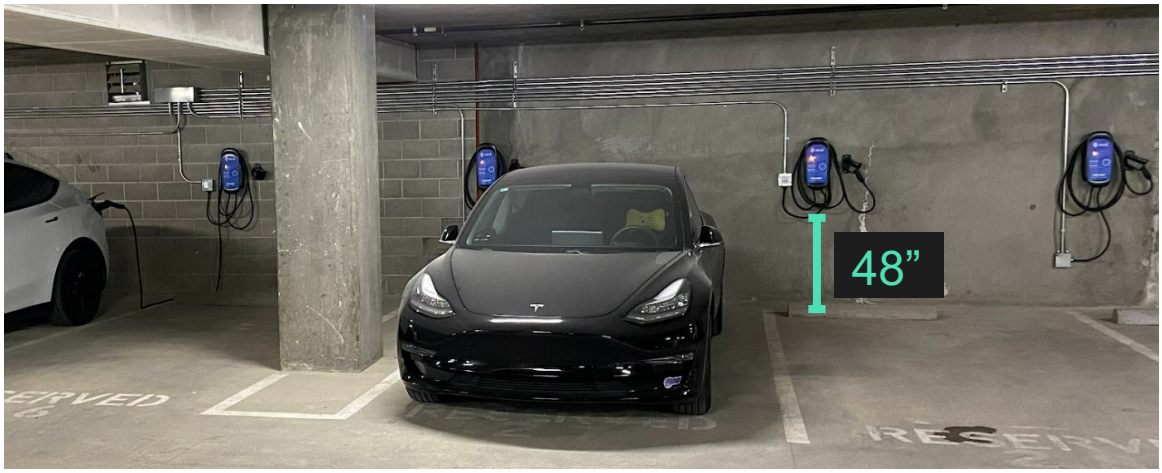
Standard Height Requirement for All Installations



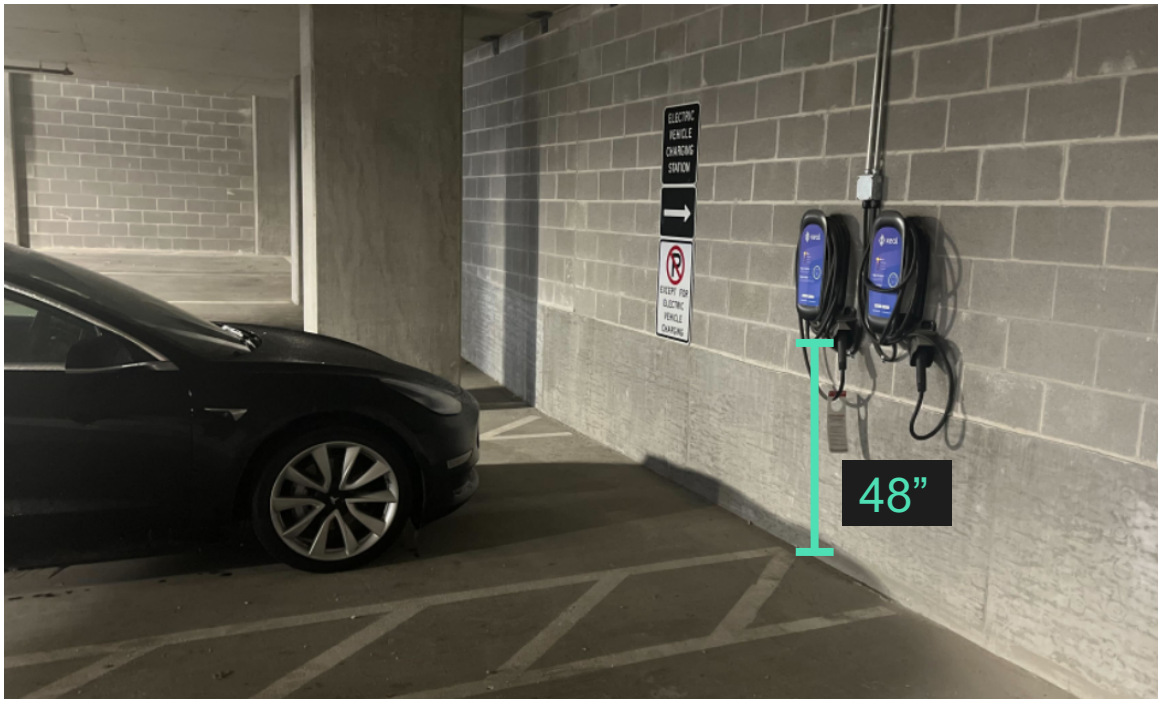
- For all Standard Installations, the bottom of the charger must be at 48"
- For required ADA Compliant Installations, the top of the charger must be at 48"
- If these installation requirements cannot be met, please contact Xeal Energy for further instructions

Wall Mounting

Standard Wall Mount



Dual Mount on Single Run or sharing a Junction Box



Pillar Column Mount



Pedestal Mounting

When installing Xeal chargers on pedestals, they must be oriented “East-West” as shown in the pictures below. It is incorrect to place the pedestal “North-South” or where one charger is facing the parking stall and the other charger facing away from the parking stall on the pedestal.

The following examples show correct pedestal configurations in different environments:

Softscape Pedestal Dual Mount



Hardscape Pedestal Dual Mount



Hardscape Pedestal Dual Mount with Concrete Riser



Softscape Pedestal Single Mount

The charging port should be easily accessible and not obstructed by railings or landscape items.



Signage

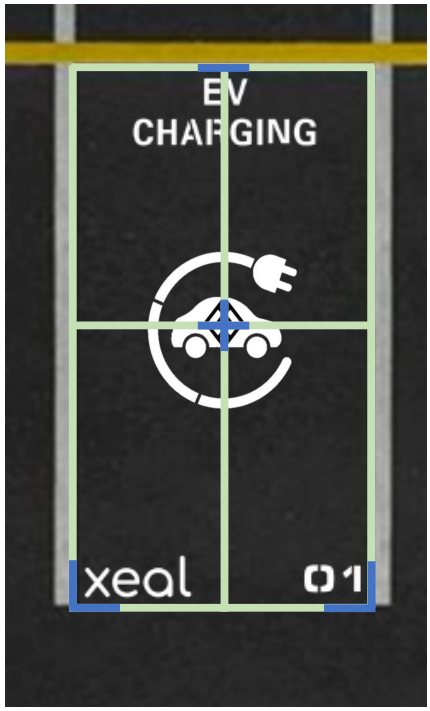
All EV chargers will require a sign posted that states it is for:

- "EV Parking Only" if it is not intended as a charging station. This situation typically happens in apartment overnight parking or workplace all day parking.
- "EV Charging" is when the primary purpose is to charge a vehicle and the vehicle must move after it is finished charging or after a posted amount of time has expired. This is similar in function to how a gas station works. This situation is usually in retail parking.



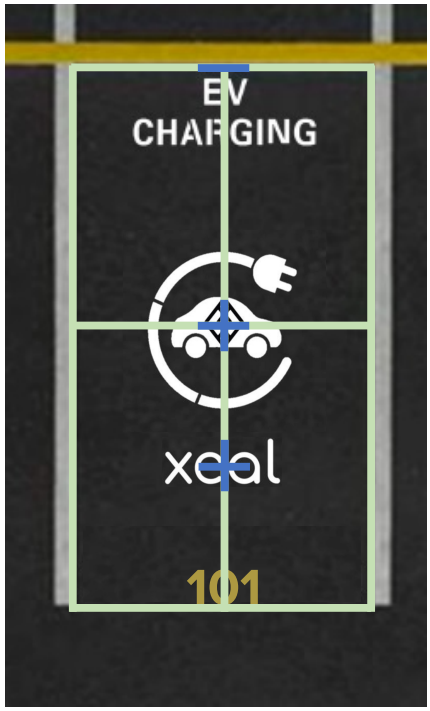


xeal



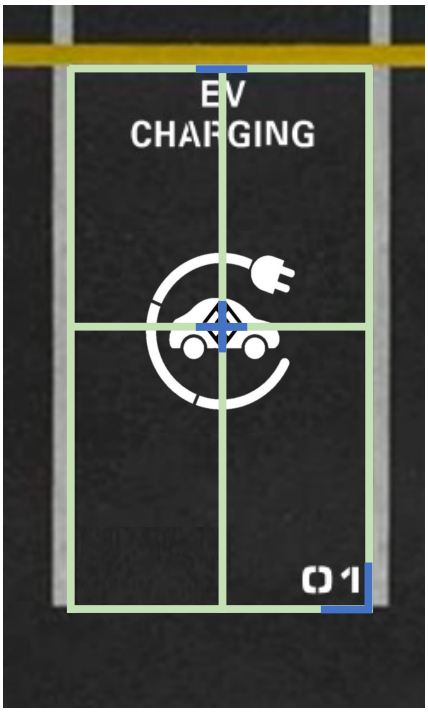


Config:
A



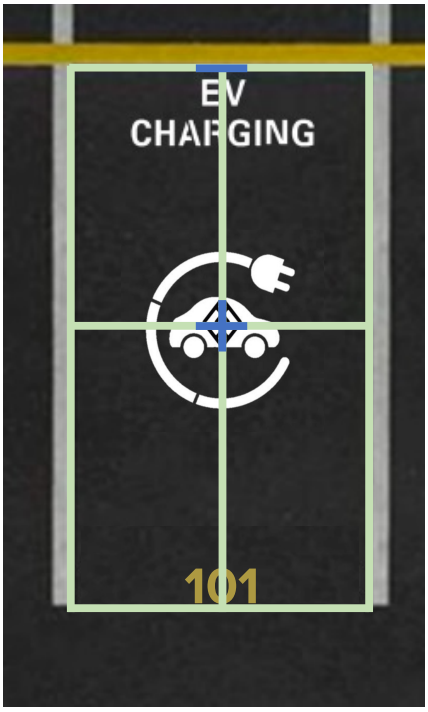


Config:
B





Config:
C





Config:
D

ADA Installation Guidance

The following two sections should be used as general guidance for compliance with the Americans with Disabilities Act (ADA) and the accessibility of electric vehicle charging stations. The document is not intended to be comprehensive and it is incumbent on the installation partner to abide by all local mandates and regulations. ADA accessibility should be considered during the site design process and when filing for permits and final inspection.

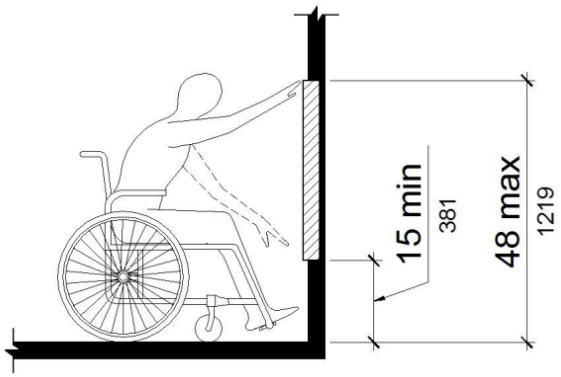
Requirements:
Please check with the local building department on specific ADA rules in jurisdiction. Below are some of the most important federal requirements with which all of Xeal installations need to comply.

ADA Accessibility

1. EV Charging is considered a service provided by the facility owner or public entity, and therefore parking stalls designated as ADA accessible *must* be accessible to these individuals.
2. You should determine the total number of accessible EVSEs based on the total number of EVSEs provided. A table below is provided as an example of California regulations.
3. Chargers and handle holsters need to be mounted between 15”-48” from the ground.
4. Specific ADA signage around EVSE charging may be required if there are more than 4 charging stations.

Exceptions
Generally, ADA accessibility is mandatory except in the following two situations.

1. EVSE not available to the general public and intended for use by a designated vehicle or driver (e.g. EVSE assigned to an employee; EVSE serving public or private fleet vehicles).
2. EVSEs intended for use by an EV owner or operator at their residence (space can be provided and assigned directly to EV owner). This typically applies to public housing facilities



ADA Parking Spaces Matrix

Total Number of EVSE at Facility	Minimum Number (by type of EVSE Required to Comply with Section 11-812 **Van Accessible**	Minimum Number (by type of EVSE Required to Comply with Section 11-812 **Standard Accessible**	Minimum Number (by type of EVSE Required to Comply with Section 11-812 **Ambulatory**
1 to 4	1	0	0
5 to 25	1	1	0
26 to 50	1	1	1
51 to 75	1	2	2
76 to 100	1	3	3
101 and over	1, plus 1 for each 200, or fraction thereof, over 100	3, plus 1 for each 60, or fraction thereof, over 100	3, plus 1 for each 50, or fraction thereof, over 100