

X.XX Electric Vehicle Charging Station and Electric Vehicle Battery Exchange Stations

A. Definitions

1. Battery charging station- an electrical component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles, which meet or exceed any standards, codes, or regulations set forth.
2. Battery Electric Vehicle (BEV)-any vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's batteries, and produce zero tailpipe emissions or pollution when stationary or operating.
3. Battery Exchange station—a fully automated facility which will enable an electric vehicle with a swappable battery to enter a drive lane and exchange the depleted battery with a fully charged battery through a fully automated process, which meet or exceed any standards, codes, and regulations set forth
4. Charging level-the standardized indicator of electrical force, or voltage, at which an electric vehicle's battery is recharged. Level 1, 2, and 3 are the most common EV charging levels and include the following specifications
 - a. Level 1 is considered slow charging.
 - b. Level 2 is considered medium charging.
 - c. Level 3 is considered fast charging.
5. Electric vehicle means any vehicle that operates, either partially or exclusively, on electric energy from the grid, an off-board source, that is store on-board for motive purpose. "Electric vehicle" includes:
 - a. a battery electric vehicle;
 - b. a plug-in hybrid electric vehicle;
 - c. a neighborhood electric vehicle; and,
 - d. a medium speed electric vehicle.
6. Electric vehicle recharging station—a public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle. An electric vehicle charging station equipped with a Level 1 or Level 2 is permitted outright as an accessory use to any principal use.
7. Electric vehicle infrastructure—structures, machinery, and equipment necessary and integral to support an electric, including battery charge stations, rapid charging stations, and battery exchange stations
8. Electric vehicle parking space—any marked parking spaces that identify the use to be exclusively for an electric vehicle.
9. Non-electric vehicle—any vehicle that does not meet the definition of "electric vehicle."
10. Rapid charging stations—an industrial grade electrical outlet that allows for faster recharge of vehicle batteries through higher power levels, which meets or exceeds any standards, codes, and regulations set forth.

B. Applicability

1. Electric vehicle charging stations with a Level 1 or Level 2 charging are permitted in any residential zones designed to serve the occupants of the home and all other zones.
2. Electric vehicle charging station(s) with a Level 3 or greater must be installed in a parking lot at a commercial, industrial, or intuitional destination, or located in a vehicle service

Article X.XX
Electric Vehicle Charging Station and Electric Vehicle Battery Stations

station. These stations are expected to have intensive use and will be permitted to have multiple "rapid charging stations" to serve expected demand.

3. Battery exchange stations are permitted in the **XX**, **XX**, and **XX** zoning districts with a special exception from the Board of Zoning Appeals.

C. Process for review.

1. Electric vehicle charging station:
 - a. New residential construction: If associated with new residential construction, the installation of a Level 1 or Level 2 battery charging station may be processed in association with the underlying permit(s).
 - b. Retrofitting single family or multi-family residential: If retrofitting a single-family or multi-family residential for a battery charging station, a building permit is required
 - c. New commercial or industrial construction: If associated with new construction, installation of a battery charging station may be processed in association with the underlying permit(s)
 - d. Retrofitting a commercial site. If retrofitting an existing commercial site for a battery charging station, a building permit is required. Additional permits may be required based upon the location of the proposed station(s)
2. Battery exchange station(s) require:
 - a. Special Exception approval from the Board of Zoning Appeals;
 - b. Development Plan approval from the Plan Commission; and,
 - c. A Building Permit and Improvement Location Permit.Additional permits may be required based up location and size of the proposed station(s).

D. Design Criteria

The following criteria may be applied to the location and design of all electric vehicle charging facilities.

1. Design should be appropriate to the location and use. Facilities should be able to be readily identified by electric car users, but blend into the surrounding landscape/architecture for compatibility with the character and use of the site.
2. Where provided, space should be standard size parking stalls but designed in a manner that will discourage non electric car vehicles from using them.
3. No minimum number of electric vehicle charging spaces are required; however, no more than ten percent (10%) of the total number of parking spaces may be designated as electric vehicle charging stations.
4. An electric vehicle charging space may count as one-half (½) of a space in the calculation for minimum parking spaces that are required pursuant to the other provisions of the Plainfield Zoning Ordinance.
5. Each charging station space shall be posted with identification that indicates the space is only for electric vehicle charging purposes. Information identifying voltage levels, amperage levels and/or safety information must be posted. If applicable, readily available information on tow away provisions and times of operation are to be provided by the charging space operator.
6. Where charging station equipment is provided within an adjacent pedestrian circulation area, such as a sidewalk or accessible route to the building(s), equipment is to be placed in a manner that does not impede, impair, or interfere with accessibility requirements.

Electric Vehicle Charging Station and Electric Vehicle Battery Stations

7. Charging station equipment is to be maintained in all respect, including functionality of the equipment. Ownership contact information is to be present at the charging station equipment for reporting of malfunction or other problems.