

CITY OF MADISON, WISCONSIN

AN ORDINANCE _____

PRESENTED
REFERRED

Plan Commission; Public
Hearings: PC (x/xx/xx),
CC (x/xx/xx)

Amending Sections 28.211, 28.061, 28.072, 28.082 and 28.091 and Creating Section 28.141(8)(e) of the Madison General Ordinances to create a new use, Electric Vehicle Charging Facility, and to require that future parking facilities are constructed to include a certain number of Electric Vehicle Capable and Electric Vehicle Ready spaces.

DRAFT

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Date: January 21, 2020

SPONSORS:

DRAFTER'S ANALYSIS: This ordinance creates a new use in the Zoning Code, Electric Vehicle Charging Facility. This would be a stand-alone facility existing for the purpose of providing electric vehicle charging on a retail basis—like a gas station. These facilities may not also sell other types of vehicle fuel, such as gasoline. Under this ordinance, these facilities would be permitted uses in the Mixed-Use Center (MXC), Commercial Center Transitional (CC-T), Commercial Center (CC), Downtown Core (DC), Urban Office Residential (UOR), Urban Mixed Use (UMX), Traditional Employment (TE), Suburban Employment (SE), Suburban Employment Center (SEC), Employment Campus (EC), Parks and Recreation (PR), and Airport (AP) districts.

This ordinance also creates a requirement that commercial and residential parking facilities of a certain size and constructed after the effective date of this ordinance be constructed so that 50% of all spaces are electric vehicle capable (served with conduit/raceways and panel capacity to allow for the future installation of an EV charging station) and 10% of all residential spaces and 5% of all commercial spaces be electric vehicle ready (served with at least a Level II electric vehicle charging station).

The purpose of this amendment is to ensure and encourage the present and future availability of electric vehicle charging stations in parking facilities throughout the City. Future projections are that by 2038, EV sales nationwide will eclipse internal combustion engine vehicle sales and that by 2040 over 57% of the total new car market will be for EVs. In Madison, recent data showed that 1.9% of new vehicles sold were electric vehicles—the highest such rate in the Midwest. Additionally, EV sales in Wisconsin increased by 24% from 2017 to 2018. As electric vehicles see greater adoption by the market, and to meet the projected increased future demand for charging infrastructure, it will be necessary to retrofit older parking facilities. This ordinance ensures that not only will current and near-term charging station demand be met, but that future charging station demand can be cost-effectively provided. It is far cheaper and more efficient to build EV capable spaces at the time of new construction than to retrofit parking facilities in the future.

The Common Council of the City of Madison do hereby ordain as follows:

Approved as to form:

1. Section 28.211 entitled "Definitions" of the Madison General Ordinances is amended by creating therein the following:

"Electric Vehicle or EV means any vehicle that is licensed and registered for operation on public and private highways, roads, and streets, and that operates either partially or exclusively, on electrical energy from the grid, or an off-board source, that is stored on-board via a battery for motive purpose. Electric Vehicle includes:

- (1) a battery electric vehicle; and
- (2) a plug-in hybrid electric vehicle.

Electric Vehicle Charging Facility. A stand-alone facility where electricity is retailed directly to the public on the premises for purposes of charging electric vehicles at one or more electric vehicle charging stations. An Electric Vehicle Charging Facility may also retail minor accessories but may not provide other types of vehicle fuel, such as gasoline.

Electric Vehicle Charging Station. A parking space that is served by electric vehicle supply equipment for the purpose of transferring electric energy to a battery or other energy storage device in an electric vehicle. The terms Level 1, 2, and 3 charging stations are the most common electric vehicle charging levels, and include the following specifications:

- (1) Level 1 is considered slow charging and operates on a 15 to 20 amp breaker on a 120 volt AC circuit.
- (2) Level 2 is considered medium charging and operates on a 40 to 100 amp breaker on a 208 or 240 volt AC circuit.
- (3) Level 3 is considered "fast" or "rapid" charging and typically operates on a 60 amp or higher breaker on a 480 volt or higher three phase circuit with special grounding equipment. Level 3 stations are primarily for commercial and public applications and are typically characterized by industrial grade electrical outlets that allow for faster recharging of electric vehicles.

Electric Vehicle Supply Equipment or EVSE are the conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

EV Capable Space means a designated parking space which is provided with electrical panel capacity and space to support a minimum 40-ampere, 208/240-volt branch circuit, and the installation of raceways, both underground and surface mounted, to support the future installation of EVSE to serve the parking space.

EV Ready Space means a designated parking space which is provided with one 40-ampere, 208/240-volt dedicated branch circuit for EVSE servicing Electric Vehicles. The circuit shall terminate in a suitable termination point such as a receptacle, junction box, or an EVSE, and be located in close proximity to the proposed location of the EV parking space."

2. Subdivision (e) entitled "Electric Vehicle Charging Station Requirements" of Subsection (8) entitled "Parking Design and Location" of Section 28.141 entitled "Parking and Loading Standards" of the Madison General Ordinances is created as follows:

"(e) Electric Vehicle Charging Station Requirements. Parking facilities shall be designed and built to meet the following requirements:

1. Where 6 or more parking spaces are being provided for residential uses, 50% of the provided spaces must be EV capable spaces and 10% of the provided spaces must be EV ready spaces, at least to a Level 2 standard.

2. Where parking is being provided for commercial uses, 50% of the provided spaces must be EV capable spaces and 5% of the provided spaces must be EV ready spaces, at least to a Level 2 standard.
3. Accessible Stations. Accessible charging stations shall be provided based on the following:

Number of EV Ready Stations Required	Min. Accessible
3-50	1
51-100	2
101+	+1 for each 50"

3. Table 28D-2 of Section 28.061 entitled "Mixed-Use and Commercial Districts Uses" of the Madison General Ordinances is amended by amending and creating therein the following:

"Mixed-Use and Commercial Districts							
	LMX	NMX	TSS	MXC	CC-T	CC	Supplemental Regulations
Automobile Services							
<u>Electric Vehicle Charging Facility</u>				P	P	P"	

4. The Table 28E-2 of Subsection (1) of Section 28.072 entitled "Downtown District Uses" of the Madison General Ordinances is amended by amending therein the following:

"Downtown and Urban Districts						
	DC	UOR	UMX	DR1	DR2	Supplemental Regulations
Automobile Services						
<u>Electric Vehicle Charging Facility</u>	P	P	P"			

5. Table 28F-1 of Subsection (1) of Section 28.082 entitled "Employment District Uses" of the Madison General Ordinances is amended by amending therein the following:

"Employment Districts							
	TE	SE	SEC	EC	IL	IG	Supplemental Regulations
Automobile Services							
<u>Electric Vehicle Charging Facility</u>	P	P	P	P"			

6. Table 28G-1 of Subsection (1) of Section 28.091 entitled "Special District Uses" of the Madison General Ordinances is amended by amending therein the following:

"Special Districts

	A	UA	CN	PR	AP	Supplemental Regulations
Automobile Services						
<u>Electric Vehicle Charging Facility</u>				P	P"	