CITY COUNCIL ORDINANCE NO. TBD-2022

ELECTRIC VEHICLE (EV) READY PARKING

INTRODUCED BY COUNCILMEMBER EMMANUEL V. REMY AND COUNCILMEMBER ROB DORANS

..Explanation

BACKGROUND:
The City of Columbus has adopted bold climate and equity goals to ensure that we do our part to combat global climate change and ensure a healthy and prosperous community for all our residents now and in the future. Columbus' Climate Action Plan outlines a set of commitments to mitigate and adapt to the impacts of climate change while focusing on community needs and proven best practices. Adoption of an Electric Vehicle Ready Parking Ordinance is a priority action in the City's Climate Action Plan.

The purpose of this Ordinance is to provide widespread access to electric vehicle charging throughout the City to prepare for rapid electric vehicle adoption, improve local air quality, and achieve the City's climate and equity goals in an accessible and inclusive manner. Electric vehicles require charging stations to provide power to the vehicle. The vast majority of parking facilities are not currently constructed to accommodate the installation of electric vehicle charging stations.

The City will reconvene stakeholders in six years (2028) to review the current electric vehicle adoption date to ensure that Columbus' projected electric vehicle charging needs are met, while providing equitable access to EV charging infrastructure throughout the City in the future.

FISCAL IMPACT: TBD

..Title
To supplement the Columbus Zoning Code, Title 33, Chapter 3312 "OFF-STREET PARKING AND LOADING", to add new sections 3312.55 through 3312.57 which include requirements to install electric vehicle charging infrastructure in newly constructed and renovated parking spaces in accordance with the requirements set forth below.

..Body

WHEREAS, in response to the City of Columbus' ambitious goal to be a carbon neutral community by 2050, supporting cleaner vehicles will result in fewer greenhouse gas emissions, cleaner air, and improved public health; and

WHEREAS, 38% of Columbus' greenhouse gas emissions come from transportation[1]; and

WHEREAS, in contrast, electric vehicles in Ohio currently emit 48% fewer greenhouse gasses than gasoline vehicles, with an expectation that this number will improve as more solar and wind power replace fossil fuel energy on the electric grid[2]; and

[1] https://www.columbus.gov/WorkArea/DownloadAsset.aspx?id=2147521455
[2] https://afdc.energy.gov/vehicles/electric_emissions.html

WHEREAS, gas-powered vehicles are a major contributor to air pollution in Columbus and disproportionately impacts Black, Indigenous, People of Color, and low-income communities, while electric vehicles emit no harmful tailpipe air pollutants; and

WHEREAS, the benefits of electric vehicles include improved air quality, reduction of carbon emissions, quieter and more livable streets, decreased dependence on fossil fuels, and equitable access to lower cost transportation options; and

WHEREAS, Columbus is committed to working with community organizations and residents to better understand transportation barriers and creating supportive programs that help residents access more environmentally friendly and affordable transportations options; and

WHEREAS, the adoption of electric vehicles in Columbus is outpacing the national average[3], and auto manufacturers and the Federal Government have committed to investing more than $100 billion to develop electric vehicles and electric vehicle charging infrastructure; and

WHEREAS, convenient and reliable access to electric vehicle charging at home and at work is one of the most critical factors in an individual's decision to purchase an electric vehicle; and

WHEREAS, parking garages and parking lots last for multiple decades. Investing in electric vehicle charging infrastructure during building construction often results in at least 75% cost savings compared with retrofitting later[4]; and

WHEREAS, an electric vehicle-ready parking ordinance is critical to making clean vehicles more accessible to all, particularly providing greater access to more affordable at-home charging; and

WHEREAS, this ordinance will ensure that electric vehicle charging stations will be installed as set forth herein; and

WHEREAS, the Columbus Development Commission reviewed and commented on this amendment at its monthly public meeting held on May 12, 2022; now, therefore:

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBUS:

SECTION 1. That Columbus City Codes are hereby supplemented with the creation of a new section numbered 3312.55, which shall read as follows:

3312.55 PURPOSE

A. Purpose of Electric Vehicle Parking Requirements.

The requirements of this Section are intended to provide electric vehicle charging abilities distributed throughout the City to prepare for emerging electric vehicle technologies, improve air quality, and achieve City climate and equity goals.

[3] https://smart.columbus.gov/projects/consumer-electric-vehicle-adoption

[4] https://energy-solution.com/wp-content/uploads/2016/09/PEV-Infrastructure-Cost-Effectiveness-Summary-Report-2016-07-20b.pdf

B. Applicability.

The requirements of this C.C. Sections 3312.55 through 3312.57 shall apply only to applications for certificate of zoning clearance for newly constructed parking lots or parking structures with a minimum of 10 parking spaces, or for the addition of 10 or more new parking spaces to an existing parking lot or parking structure, received on or after the effective date of January 1, 2024.

SECTION 2. That Columbus City Codes are hereby supplemented with the creation of a new section numbered 3312.56, reading as follows:

3312.56 ADMINISTRATIVE REQUIREMENTS

A. General Requirements.

1. An Electric Vehicle (EV) is defined as a motor vehicle that uses one or more electric motors for propulsion. Onboard batteries provide electricity for propulsion, which can be charged using Electric Vehicle Supply Equipment (EVSE).
2. Electric vehicle parking spaces shall meet all performance standards of Chapter 3312.
3. EV Readiness requirements are categorized in three levels as follows:
    i. *EV Capable:* These parking spaces provide dedicated electrical panel capacity and conduit to the EV Capable parking space. Panel-space specifically includes reserved breaker or sub-panel expansion to meet needed future EVSE installation.
    ii. *EV Ready:* These parking spaces provide dedicated electrical panel capacity, conduit, and wiring installed with termination at an outlet to the EV Ready parking space.
    iii. *Electric Vehicle Supply Equipment (EVSE Installed):* These parking spaces are reserved for EVs and provide dedicated panel capacity, conduit, and EVSE installed.
4. The total percentage of EV Capable spaces required shall decrease by the total percentage of EV Installed spaces that exceed the minimum required percentages provided in Section 3312.57 below.

B. Technical Specifications.

The Director of the Department of Building and Zoning Services shall promulgate rules and regulations for the administration of the Technical Specifications of Sections 3312.55 through 3312.57 which may change over time due to changing technologies for EVSE in electric-powered vehicles.

1. EV Capable shall meet the following requirements:
    a. Minimum 40A input service per two spaces.
2. EV Ready shall meet the following requirements:
    a. Minimum 40A input service per space.
    b. Wiring must be terminated within a NEMA 6-50 or NEMA 14-50 outlet.
3. Electric Vehicle Supply Equipment (EVSE) Installed shall meet the following requirements:

a. Minimum provided 40A input current for two parking spaces utilizing load share management; or 40A input current with 7.2 kW per one parking space not utilizing load share management.
b. Installed per the requirements of the National Electric Code (NFPA 70).
c. One SAE J1772 charging port per EV Installed space.

B. Number of Spaces Required.

The parking requirements of this Section are intended to provide minimum standards. The EV parking requirements are based on a percentage of the total parking spaces. Where the calculation of percent served results in a fractional parking space, it shall be rounded up to the next whole number. This requirement does not apply to buildings that are without ten or more designated parking spaces.

C. Design.

1. Charging equipment must be mounted on the wall or on a structure at the end of the electric vehicle parking space provided.
2. No charging devices may be placed within the dimensions of a space, on the sides, or entrance to a space.
3. When cords and connectors are not in use, retraction devices or locations for storage shall be located sufficiently above the pedestrian surface and the parking lot as to reduce conflicts with pedestrians and vehicle maneuvering.
4. Cords, cables, and connector equipment shall not extend across the path of travel in any sidewalk or walkway.
5. Equipment mounted on structures such as pedestals, lighting posts, bollards, or other devices shall be located in a manner that does not impede pedestrian, bicycle, or transit travel.
6. Upon a showing of good cause, alternative designs may be approved by the Director or their designee.
7. Per rules adopted by the Director, and inconformity with this Chapter, additional landscape screening may be required for mechanical equipment such as transformers associated with charging equipment, consistent with mechanical equipment screening requirements in Chapter 3312.21 Landscaping and screening or Chapter 3321.11 Screening of mechanical systems.

D. Accessibility.

1. A minimum of one (1) EVSE Installed space must be located adjacent to an Americans with Disabilities Act (ADA) Accessibility designated space to provide access to the charging station.
2. The accessible space must be designated as an EV reserved space.
3. The EVSE Installed accessible spaces must comply with ADA Guidelines referenced in Chapter 3312.31 Parking space for ADA compliance.
4. The EVSE Installed accessible spaces should have all relevant parts located within accessible reach, and in a barrier-free access aisle for the user to move freely between the EVSE and the electric vehicle.

E. Signage.
All signage for EVSE installed parking spaces must follow the Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA MUTCD) standards applicable to EV charging, as such manual may be amended, or re-issued, by its successor in interest.

SECTION 3. That Columbus City Codes are hereby supplemented with the creation of a new section numbered 3312.57, reading as follows:

3312.57 EV PARKING MINIMUM REQUIREMENTS EFFECTIVE JANUARY 1, 2024

Building Category	Building Types Includes	EV Capable	EV Ready	EVSE Installed
1, 2, or 3 dwelling units	Single-, two-, and three-unit dwellings (R-rural, LRR, RRR, RR, SR, R-1, R-2, R-3, R-2F, or R-4 Zoning Code Districts, including those in Special Parking Districts)	N/A	One EV Ready outlet per parking space	N/A
4 or more dwelling units, office, and workplace	Market-rate multi-unit residential buildings (AR-12, ARLD, AR-1, AR-2, AR-3, and AR-4 Zoning Code Districts) and administrative offices, health care facilities, financial offices, educational facilities, etc. (C-2 Zoning Code District), including those in Special Parking Districts	30%	N/A	10%
All other commercial	Retail, grocery, restaurants, etc. (C-1, C-3, C-4, and C-5 Zoning Code Districts); standalone surface lots and parking structures, including those in Special Parking Districts	20%	N/A	5%
Affordable multi-unit residential housing	Multi-unit residential housing where 50% or more of the units have income and/or rent restrictions	15%	N/A	5%*

	that are monitored by a government agency			
City of Columbus parking	All off-street parking constructed, owned, or operated by the City of Columbus	55%	N/A	15%

*****Level 2 charger installation subject to availability of funding.

SECTION 4. That this ordinance shall take effect and be in force from and after the earliest period provided by law.