SOUTHERN MAINE PLANNING AND DEVELOPMENT COMMISSION

MODEL ORDINANCE

ELECTRIC VEHICLE INFRASTRUCTURE

SMPDC

SOUTHERN MAINE PLANNING & DEVELOPMENT COMMISSION

Chapter/Article _____

ELECTRIC VEHICLE INFRASTRUCTURE

1. Authority

1.1. This ordinance shall be titled "(MUNICIPALITY) Electric Vehicle Infrastructure Ordinance" and is enacted pursuant of the provisions of M.R.S.A. Title 30-A, Chapter 141 §3001 - §3003 and Chapter 187 §4351.

1.2. The Planning Board of the (MUNICIPALITY), hereinafter called the Board, shall administer these regulations for new and redeveloped parking facilities.

2. Purpose

2.1. The purpose of this ordinance is to facilitate and encourage the use of electric vehicles, to expedite the establishment of a convenient, cost-effective electric vehicle infrastructure, and to establish minimum requirements for such infrastructure to serve both long-term and short-term parking needs.

3. Definitions

Accessible electric vehicle charging station means an electric vehicle charging station where the battery charging station is located within accessible reach of a barrier-free access aisle and the electric vehicle.

Battery charging station means an electrical component, assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles.

Battery electric vehicle means any vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's batteries and produces zero tailpipe emissions or pollution when stationary or operating.

Charging levels means the standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is recharged. The terms 1, 2, and DC are the most common charging levels, and include the following specifications:

- Level 1 provides charging through a 120 volt (V), alternating-current (AC) plug. Level 1 is considered as slow charging. Level 1 charging equipment is

standard on vehicles and therefore does not require the installation of charging equipment. The most common place for Level 1 charging is at the vehicle owner's home and is typically conducted overnight.

- Level 2 charging is through a 240V, AC plug and requires installation of home charging or public charging equipment. These units require a dedicated 40 amp circuit. Level 2 chargers are commonly found in residential settings, public parking areas, places of employment and commercial settings.

- Level 3 charging is through a 480V, direct-current (DC) plug. Due to their high cost and extremely high power draw, Level 3 chargers are typically found in commercial or industrial locations rather than residential.

Electric vehicle means a vehicle that operates, either partially or exclusively, on electrical energy from the electrical grid, or an off-grid source, that is stored on board for motive purposes. “Electric vehicle” includes:

- Battery electric vehicle

- Plug-in hybrid electric vehicle

Electric vehicle charging station (EVCS) means 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.

Electric vehicle charging station – private restricted use means an electric vehicle charging station that is:

- Privately owned and restricted access (e.g., single-family home, executive parking, designated employee parking, assigned parking at multi-family residential buildings); or

- Publicly owned and restricted (e.g., fleet parking with no access to the general public).

Electric vehicle charging station – public use means an electric vehicle charging station that is:

- Publicly owned and publicly available (e.g., Park & Ride parking, public library parking lot, on-street parking); or

- Privately owned and available to visitors of the use (e.g., shopping center parking).

Electric vehicle infrastructure means conduit/wiring, structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations.

Electric vehicle parking space means any marked parking space that identifies the use to be exclusively for the parking of an electric vehicle.

Electric vehicle supply equipment (EVSE) means any equipment or electrical component used in charging electric vehicles at a specific location. EVSE does not include equipment located on the electric vehicles themselves.

Electrical capacity shall mean, at minimum:

- Panel capacity to accommodate a dedicated branch circuit and service capacity to install a 208/240V outlet per charger;
- Conduit from an electric panel to future EVCS location(s).

Non-electric vehicle means any motor vehicle that is license and registered for operation on public and private highways, roads, and streets that does not meet the definition of an electric vehicle.

Plug-in hybrid electric vehicle means an electric vehicle that:

- Contains an internal combustion engine and also allows power to be delivered to drive wheels by an electric motor;
- Charges its battery primarily by connecting to the grid or other off-board electrical source;
- May additionally be able to sustain battery charge using an on-board internal-combustion-driven generator; and
- Has the ability to travel powered by electricity.

4. Applicability

4.1. This ordinance shall apply to all electric vehicle infrastructure installed, constructed, or modified after the effective date of this Ordinance.

4.2. Electric vehicle infrastructure in place prior to the effective date of this ordinance shall not be required to meet the requirements of this ordinance unless substantial modification to the infrastructure is proposed in accordance with the criteria identified in Section 6.1.

4.3. All electric vehicle infrastructure shall be designed, built, and installed in accordance with applicable local, state, and federal codes, regulations, and standards.

5. Permitted Locations

5.1. Level 1, Level 2, and Level 3 EVCS are permitted in every zoning district, when accessory to the primary permitted use. Such stations located at single-family, two-family, and multi-family land uses shall be designated as private restricted use only.

5.2. If the primary use of the parcel is the retail electric charging of vehicles, then the use shall be considered a motor fuel station for zoning purposes. Installation shall be located in zoning districts which permit motor fuel stations.

6. Required Facilities

6.1. All new or reconstructed parking structures or lots shall be required to install EVCS according to Table 6.1 when one of the following conditions is met:

- The development includes a new off-street parking facility with more than 10 spaces; or

- The parking capacity of an existing building, site, or parking facility with 20 or more spaces is increased by 30 percent or more (expressed as [number of additional spaces]/[number of existing spaces] x 100).

6.1.1. The number of EV charging stations required to be installed at the time of development is stated as a percentage of the total number of parking spaces in Column A of Table 6.1. Requirements will be rounded to closest whole number but will always be a value of at least one EVCS to be available at the time of development occupancy.

6.1.2. To meet anticipated demand for EV charging stations as the technology becomes more widespread, Column B of Table 6.1 specifies the required increased electrical capacity to enable future EV charging station installations. Electric capacity requirements are met by providing a cabinet, box or enclosure connected to a conduit linking parking spaces with 208/240V or higher voltage AC electrical service for the suitable for the number of charging stations. Capacity requirements will be rounded to the closest whole number.

- Site design must provide electrical, associated ventilation, accessible parking, and wiring connection to transformer to support the additional potential future electric vehicle charging stations.

Table 6.1
EV Charging Requirements for new and reconstructed parking structures

Land Use Type	A. Number of EVCS required (As a % of total parking spaces)	B. Increased Electrical Capacity for future EVCS (As a % of total parking spaces)
Multi-family Residential	10%	10%
Lodging	3%	3%
General Office, Medical	3%	3%
Industrial	1%	1%
Institutional, Municipal	3%	3%
Commercial (Retail, Dining, Recreational, Entertainment, Cultural, etc.)	1%	1%

6.1.3. These requirements may be revised upward or downward by the Planning Board as part of an application for a conditional use permit or planned unit development based on verifiable information pertaining to parking.

7. General Requirements for Electric Vehicle Infrastructure

7.1. Electric vehicle charging stations within single-family and two-family residences are exempt from the below general requirements. This does not exempt electrical or other permit obligations.

7.2. **General station requirements**

7.2.1. Size. A standard size parking space shall be used for an electric vehicle charging station where such a station is required or planned.

7.2.2. Equipment Standards and Protection. Where provided, parking for electric vehicle charging purposes shall meet the standards of subsections 7.2.2 (1) through (4) of this section.

1. Clearance. Charging station equipment mounted on pedestals, light posts, bollards or other devices shall be a minimum of 24 inches clear from the face of curb.

2. Charging Station Equipment. Charging station outlets and connector devices shall be no less than 36 inches or no higher than 48 inches from the top of surface where mounted, and shall be designed and located as to not impede pedestrian travel or create trip hazards on sidewalks.

3. Charging Station Equipment Protection. When the electric vehicle parking space is perpendicular or at an angle to curb face and charging equipment, adequate equipment protection, such as wheel stops or concrete-filled steel bollards shall be used.

4. Maintenance. Charging station equipment shall be maintained in all respects, including the functioning of the charging equipment. A phone number or other contact information shall be provided on the charging station equipment for reporting when the equipment is not functioning or other problems are encountered.

7.2.3. Signage. Electric vehicle charging stations, other than in residential use, shall have posted signage allowing only charging electric vehicles to park in such spaces. For the purposes of this subsection, "charging" means that an electric vehicle is parked at an electric vehicle charging station and is connected to the charging station equipment. Signage for parking of electric vehicles shall include:

- Information on the charging station to identify voltage and amperage levels and any time of use, fees, or safety information.

- Restrictions shall be included on the signage, if removal provisions are to be enforced by the property owner pursuant to Chapter ___.

- As appropriate, directional signs to effectively guide motorists to the charging station space(s).

7.2.4. Lighting. Site lighting shall be provided where EVCS is installed unless charging is for daytime purposes only. Lighting standards should be met pursuant to the (MUNICIPALITY)'s zoning ordinance.

7.2.5. Time limits may be placed on the number of hours that an electric vehicle is allowed to charge, prohibiting indefinite charging/parking. If applicable, warnings shall be posted to alert charging station users about hours of use and possible actions affecting EVCS that are not being used according to posted rules.

7.2.6. The EVCS must be operational during the normal business hours of the use(s) that it serves. EVCS may be de-energized or otherwise restricted after normal business hours of the use(s) it serves.

7.2.7. Usage Fees. The property owner or operator is not restricted from collecting a service fee for the use of an electric vehicle charging station made available to visitors of the property.

7.3. **Accessible Facilities**

7.3.1. Where electric vehicle charging stations are provided in parking lots or parking garages, excluding garages in single-family or two-family residential units, accessible electric vehicle charging stations shall be provided according to the ratios shown in Table 7.3. The first column indicates the number of electric vehicle stations being provided on-site and the second column indicates the number of accessible charging stations that are to be provided for the corresponding number(s) of charging stations.

Table 7.3
Minimum Number of Accessible Electric Vehicle (EV) Charging Stations

Number of EV charging stations	Minimum accessible EV charging stations
5–50	1
51–100	2
101–150	3

7.3.2. It is strongly encouraged, but not required, that a minimum of one accessible EVCS be provided at sites with less than 5 EVCS.

7.3.3. Accessible electric vehicle charging stations should be located in close proximity to the building or facility entrance and shall be connected to a barrier-free accessible route of travel. It is not necessary to designate the accessible electric vehicle charging station exclusively for the use of disabled persons.

7.4. **Charging and Parking**

7.4.1. EVCS parking spaces are to be included in the calculation for both the number of minimum and maximum parking spaces required, as provided by [Chapter and Section number for Parking Requirements].

7.4.2. EVCS parking spaces, where provided for public use, are reserved for parking and charging electric vehicles only, except as otherwise provided by this [chapter/section].

7.4.3. Electric vehicles may be parked in any space designated for public parking, subject to the restrictions that would apply to any other vehicle that would park in that space.

7.5. **Parking Restrictions**

7.5.1. No person shall stop, stand or park any non-electric vehicle in a space designated through signage as an electric vehicle charging station. Any non-electric vehicle is subject to removal by the property owner or the property owner's agent.

7.5.2. Any electric vehicle in an electric vehicle parking stall that is signed exclusively for electric vehicle charging and that either (1) is not electrically charging or (2) is parked beyond the days and hours designated on regulatory signs posted at or near the space shall be subject to removal as posted by the property owner or the property owner's agent. For purposes of this subsection, "charging" means an electric vehicle is parked at an electric vehicle charging station and is connected to the charging station equipment.

7.6. **Decommissioning**: Unless otherwise directed by the (MUNICIPALITY). Within ninety (90) days of cessation of use of the EVCS, the property owner or operator shall restore the site to its original condition. Should the property owner or operator fail to complete said removal within ninety (90) days, the (MUNICIPALITY) shall conduct the removal and disposal of improvements at the property owner or operator's sole cost and expense.

8. **Violations**

8.1. If the owner of an EVCS is found to be in violation of the provisions of this Ordinance, Code Enforcement Officer shall be responsible for administering the violation.

9. **Effectiveness, Interpretation, Severability**

9.1. This ordinance shall become effective immediately upon its adoption.

9.2. All other portions, parts, and provisions of the Zoning Ordinance of (MUNICIPALITY) as heretofore enacted and amended shall remain in force and effect.

9.3. The invalidity of any section or provision of the ordinance shall not be held to invalidate any other section or provision of this Ordinance.

9.4. If any part of this ordinance conflicts with any other applicable federal, state, or local regulation, the more restrictive regulation shall control.