

EV Charging Across City Sidewalks Pilot Program - Cambridge, MA (announced July 2023)

PowerPoint By

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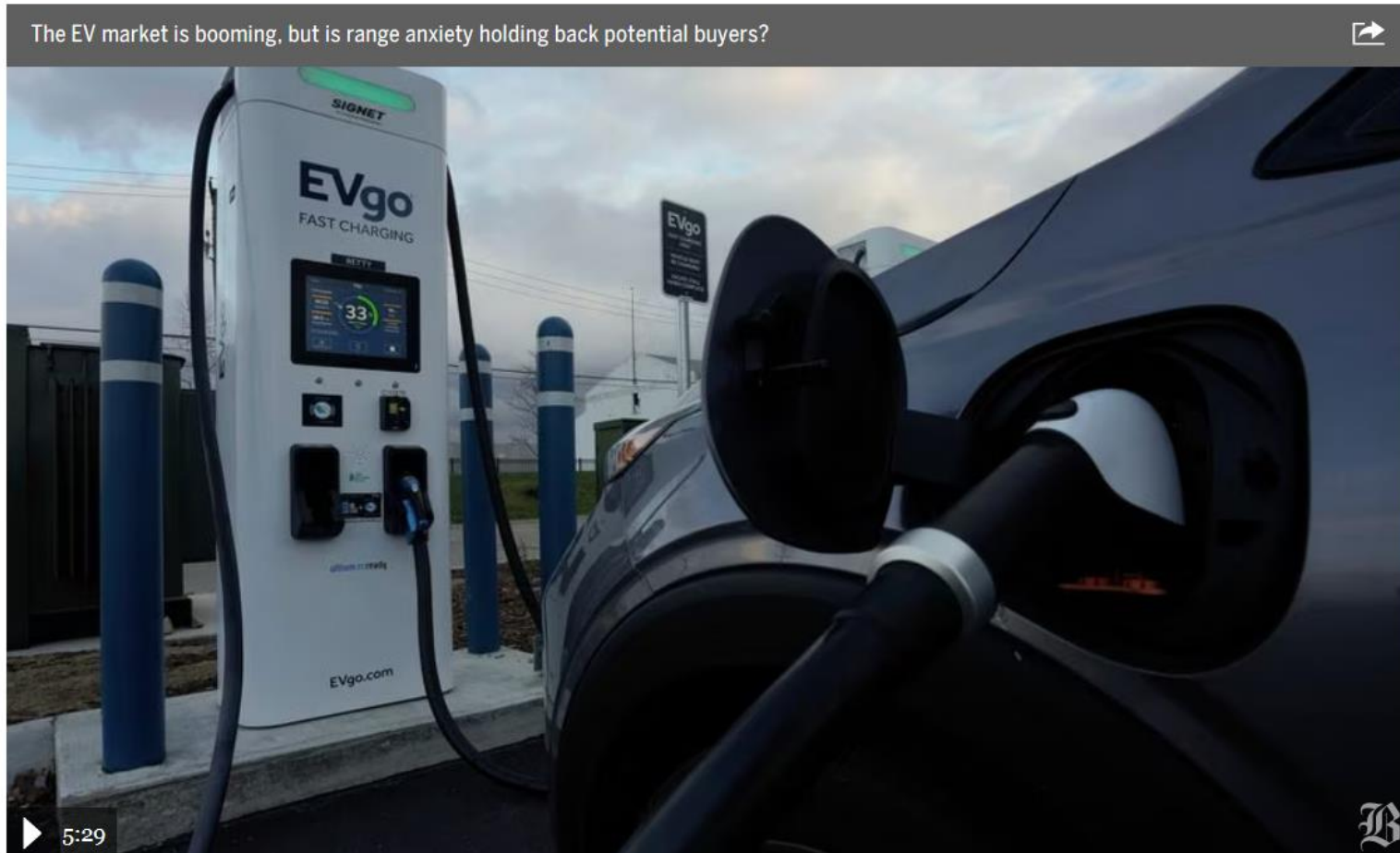
City of Salem, MA

Presented at SERC monthly meeting, Sept. 27, 2023

Cambridge legalizes EV charging across the sidewalk

The city requires a permit and the use of a ramp or swing-arm for safety

By [Aaron Pressman](#) Globe Staff, Updated August 21, 2023, 12:00 a.m.



Boston Globe reporter Aaron Pressman drove around testing EV charger efficiency to see if New England is ready to go full electric.

A possible solution for electric vehicle charging for many city dwellers is taking shape under a small ramp laid across a sidewalk in Cambridgeport.

Russell Keziere, who lives in a condo without parking spaces in the Cambridge neighborhood, is running a power cable under the ramp to charge his new electric BMW, which he parks on the street in front of his home. Unlike most residents who are draping charging cords across the sidewalk in violation of city rules, Keziere has a permit; his setup is legal and doesn't present a tripping hazard.

While EV owners with driveways or garages have easier access to recharging, options are more limited for the growing numbers of owners who live in more densely built areas, including in progressive redoubts such as Cambridge.

Charging an EV is a challenge for the one-third of Massachusetts residents who lack access to off-street parking, sometimes referred to as "garage orphans." Cambridge, Boston, and other cities are installing hundreds of charging terminals on streets and in parking lots, but the effort will take several years to catch up with the expected demand. The state's climate plans call for almost tripling the 70,000 EVs currently on the road over the next two years and [getting close to one million by 2030](#).

Boston, like most Massachusetts localities, does not allow charging over the sidewalk. In a recent case, the city's Transportation Department [forbade a Dorchester EV owner](#) from charging his car across the sidewalk, leading him to a years-long campaign to build a mini-driveway.

"We are evaluating the idea," said city spokesperson Anne Roach. "We want to encourage the transition to EVs while maintaining sidewalk accessibility and the availability of public parking spaces for all."

Cambridge, with more than 5,000 EVs registered to residents, began a pilot program last month allowing people to apply for permits to charge their vehicles across sidewalks.

“We don’t know what the future will hold, but we do know many people in Cambridge would not buy an EV because they didn’t know where they would charge,” City Councilor Patty Nolan, who pushed for the pilot program, said. “The hope is that this won’t be needed five to 10 years from now because we’ll have so many curbside chargers.”

Climate advocates agreed the sidewalk charging program could encourage EV ownership.

“This is a very good first step,” said Janet Domenitz, executive director of environmental advocacy group MASSPIRG and a resident of Cambridge. “But not far down the road, I hope there will be EV charging available to all that won’t have to be done house by house.”

Under the Cambridge program, EV drivers [who live more than one-eighth of a mile](#) from a public charger can seek a sidewalk charging permit for \$200 per year. Residents must either cover the cord with a removable ramp that complies with the Americans With Disabilities Act or install a swing-arm 9 feet off the ground to hold the cord (useful for second-floor residents wanting to string a cord down to the street).

The city, which has received five applications and approved three since the program kicked off at the end of July, sends an inspector to review the setup of all applicants.



Russell Keziere, who lives in a condo without parking spaces in Cambridge, is running a power cable under a ramp to charge his new electric BMW, which he parks on the street in front of his home. JONATHAN WIGGS/GLOBE STAFF

Keziere, who bought his electric SUV about a year ago, initially set up a ramp similar to ones he'd seen used to cover cables on sidewalks around the MIT campus. But Cambridge inspectors said the ramp wasn't ADA compliant, which could create a hazard on the sidewalk for people in wheelchairs. To get the permit, Keziere, a 70-year-old retiree, paid \$700 for a ramp that met requirements. (The city has a [list of acceptable ramps](#) with starting prices at \$150.)

Over time, as Cambridge and privately owned charging networks such as Electrify America install more chargers in the city, fewer residents will qualify for permits based on the one-eighth of a mile rule. The city has installed 20 "Level 2" charging stations with a total of 39 ports so far, which can add about 15 to 30 miles of range to an EV's battery per hour. And the city's plan is to reach 100 Level 2 ports by 2027.

Midway through April, more than 1,200 different EV drivers had charged some 4,752 times at the Cambridge-installed chargers, according to the city. That was an increase from 767 drivers who charged 2,758 times in the same period of 2022.

The city also adopted a so-called "right to charge" law that took effect in January. The law generally prevents homeowner and condo associations from blocking apartment owners who want to install EV chargers at or near dedicated parking spots.

Cambridge's own chargers installed so far are at ground level next to street curbs. The city would also like to install chargers attached to telephone poles, as [Melrose did in a pilot program](#) starting two years ago, City Councilor Nolan said. But Eversource, the city's electric utility, said the pole-mounted chargers are no longer permitted under rules from the state's Department of Energy Resources.

“Eversource recognizes that there is a need for curbside charging for customers that don’t have driveways or garages,” Sean Tully, manager of electric mobility at the company, said. “We are establishing a lot of partnerships with a lot of municipalities to address that need.”

Under a \$400 million program approved at the end of last year, [Eversource and other utilities will fund expanded charging infrastructure](#) statewide. So far this year, the Eversource funding is helping add nearly 1,000 public Level 2 ports in Massachusetts, Tully said.

Cambridge’s EV sidewalk charging permit does not provide residents with any special rights to reserve a parking space. That hasn’t been a problem for Keziere, who sometimes asks a neighbor to “scooch up” their cars out of the way.

Since he doesn’t have a daily commute to work, he typically only needs to charge his SUV for a few hours per week. While on trips to visit friends or go on vacation, he relies on fast chargers at highway rest stops and other spots, which suffer from [well-known reliability problems](#). Keziere uses specialized EV apps to find the most reliable stations.

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“You have to plan ahead,” he said. “And don’t be in a hurry.”



City of Cambridge

THE CAMBRIDGE
DEPARTMENT
OF PUBLIC
WORKS

City of Cambridge Announces Electric Vehicle Charging Pilot Program

July 12, 2023 • 1 month ago

The City of Cambridge today announced a new Electric Vehicle Charging Pilot Program that will allow charging of electric vehicles (“EV”) across City sidewalks. The new charging pilot program provides residents without driveway access the opportunity to charge EVs across the public sidewalk by applying for a new Across Sidewalk Electric Vehicle Charging permit.

The city recognizes the importance of Electric Vehicle infrastructure. As of January 2023, there were over 5,000 EVs registered in Cambridge. Electric Vehicles (EVs) create less greenhouse gas emissions and air pollution than traditional gasoline-fueled vehicles. EV drivers benefit from better fuel economy and financial incentives and contribute to cleaner air and better health for the community.

“We have continued to see an increased demand for EV charging,” said Assistant City Manager for Community Development Iram Farooq. “This program will assist the many residents who do not have access to driveways or off-street parking while we continue to expand publicly available EV charging solutions.”

To obtain this new permit, Cambridge residents who do not have access to off-street parking must:

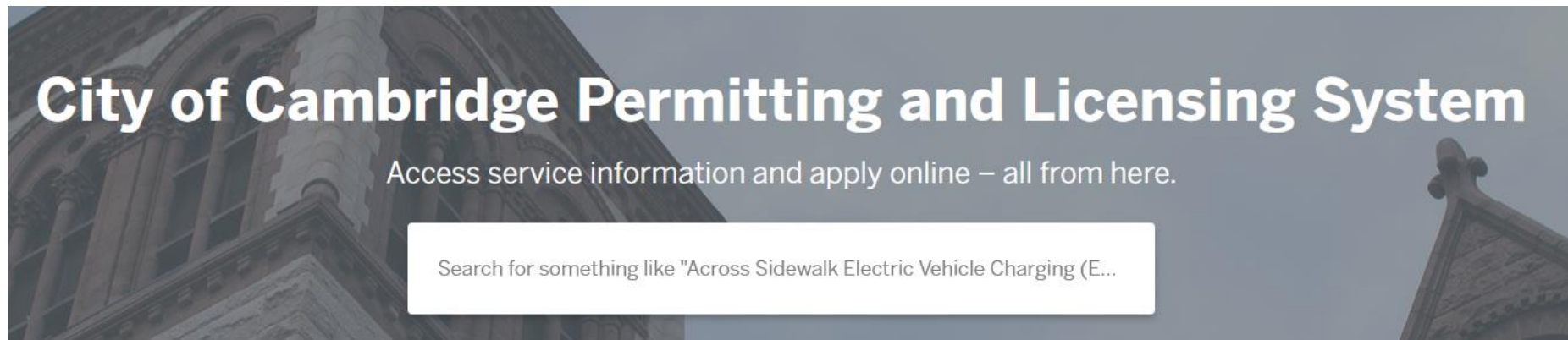
- Have a valid City of Cambridge Residential Parking Permit
- Obtain a letter from a certified electrician confirming the property is equipped with a ground floor outdoor outlet that is protected by a Ground Fault Circuit Interrupter (“GFCI”)
- Provide an accessible ramp over the cord to ensure the sidewalk remains accessible for pedestrians

This charging pilot program supports the city’s continued commitment to increasing public EV charging access and will act as a transitional piece for meeting the overall publicly accessible EV charging goals. Permits will not be issued within a five-minute walk to an existing publicly accessible charging station, on major pedestrian routes, or streets with separated bike lanes.

To date, the city has installed publicly accessible chargers throughout the city that can accommodate a total of 39 vehicles and continues to install additional charging stations in high demand areas. In 2022, over 45,000 hours of charging occurred at city-owned charging stations. As more publicly accessible chargers are installed, there will be less need for Across Sidewalk Electric Vehicle Charging permits to be issued.

The city will evaluate the Charging Pilot Program through 2024, to determine its future feasibility.

To learn more about the program or to apply for a permit, please visit: <https://cambridgema.viewpointcloud.com>

A banner with a background image of a classical building facade. The text is white and centered. At the bottom, there is a white search bar with a grey border and a magnifying glass icon on the right.

City of Cambridge Permitting and Licensing System

Access service information and apply online – all from here.

Search for something like "Across Sidewalk Electric Vehicle Charging (E..."

[Apply Online](#)

Across Sidewalk Electric Vehicle Charging (EV) Permit

Residents of residential properties in a “Designated Zone” who do not have available off-street parking will be deemed “Eligible Residents” and may apply for an annual Permit. A Permit may be granted to Eligible Residents for Level 1 (110-120V) charging only in a Sidewalk Area that is contiguous with the Eligible Resident’s residential property. A Permit will not be granted for Level 2 (240V) charging in any portions of public ways.

When considering a request for a Permit, the City, through the Superintendent of Streets, will review and determine whether the request is in the public interest. The factors the City will evaluate include, but are not limited to, safety considerations, the effect on surrounding properties, access considerations, parking considerations, access to utilities, and any upcoming construction or street changes.

The City will not approve the use of any Sidewalk Area for EV Charging Across Sidewalk if a location is deemed unsafe for such use. The City may revoke a Permit and require the immediate removal of any charging equipment if it is deemed unsafe, an emergency situation arises, the Eligible Resident is not operating their EV Charging Across Sidewalk equipment in accordance with their Permit, the Charging Pilot Program terminates, or the City's and/or public need has changed.

[Full Policy](#)

[EV Cable Protectors](#)

[Areas Not Eligible for Charging Pilot Program](#)

Obtaining and Maintaining a Permit:

As stated above, a request for a Permit will be reviewed by the Superintendent of Streets. The Superintendent of Streets shall be responsible for the issuance and revocation of any Permit. A Permit application can be completed on-line using an electronic form available at the City's Department of Public Works' ("DPW") website.

(a) Conditions for obtaining a Permit shall include:

- Only Eligible Residents may apply for a Permit.
- Must have a valid City of Cambridge Residential Parking Permit.
- A letter from a certified electrician, submitted with the Permit application, confirming the Eligible Resident's property is equipped with a ground-floor outdoor outlet that is protected by a Ground Fault Circuit Interrupter ("GFCI").
- Proof of homeowner's or renter's insurance.

(b) Conditions for maintaining a Permit shall include:

- An Eligible Resident using on the ground situated power cords, in the Sidewalk Area, shall use ADA compliant ramps that cross perpendicular to the sidewalk.
- An Eligible Resident using overhead situated power cords, in the Sidewalk Area, shall use an aerial support system with a minimum

sidewalk clearance of nine (9) feet, which is fully located on private property with an arm that can be swung back and/or retracted fully onto private property.

- An Eligible Resident may use EV Across Sidewalk Charging for the time necessary to re-charge an EV, but an Eligible Resident shall not employ EV Across Sidewalk Charging for more than twelve (12) hours at a time to charge an EV.
- When not actively charging an EV, all EV Across Sidewalk Charging equipment - including power cords, ramps, and/or aerial support systems, shall be fully removed from the Sidewalk Area.
- All local parking regulations, temporary and permanent, remain and shall be obeyed.
- An Eligible Resident shall comply with all relevant sections of the National Electric Code including using Listed and Labeled power cords for heavy duty outdoor use.
- Power cords shall be clearly tagged, with city-issued tags, at both ends with the Eligible Resident's address and Permit number.

Obtaining approval from the City and all relevant permitting departments of the City to situate charging cords in the Sidewalk Area does not create a contractual or property right or interest.

Eligible Residents must follow all parking regulations, are not guaranteed a reserved parking space, and cannot use signage or other means to reserve the parking space on a public way in front of their property. Furthermore, any violation of state, federal, and municipal laws, rules, and regulations, or of any agreement with the City, may result in the immediate removal of any equipment and revocation of their Permit.

Additionally, if the Charging Pilot Program is determined to not be successful or otherwise ends, then all issued Permits will be deemed void upon termination of the Charging Pilot Program.

It is important to note that the layout, design, and uses of City streets change from time to time. This may impact the availability of Permits. Sidewalk Areas that can accommodate Permits now may not be able to accommodate them in the future after modifications to the layout, design, and/or uses of an adjacent street.

Permit Cost: **\$200.00**

Permits must be renewed before the end of each calendar year to continue the use of Across Sidewalk Electric Vehicle Charging permits.

Website	Vendor/Brand	Price	# of channels	Notes	ADA?	Weight
Electriduct.com	electriduct	\$226	5 channels		Yes	21 lbs
granger.com	GRAINGER	\$403.28	3 channels	Design comes with option of either 1, 2, 3, or 5 channels (prices vary) Load capacity: 13,500 lbs.	Yes	N/A
vevor.com	VEVOR	\$152.99	5 channels	Load capacity: 22,000 lbs.	Yes	76 lbs
discountramps.com	ElastoUltraguard	\$245	5 channels	Load capacity: 20,000 lbs.	Yes	30 lbs
discountramps.com	Guarddog	\$323.99	5 channels	Load capacity: 21,000 lbs. Orange and blue option	Yes	21 lbs



CITY OF CAMBRIDGE
ACROSS SIDEWALK ELECTRIC VEHICLE CHARGING PERMIT PILOT POLICY
Effective for Calendar Years 2023-2024

I. Background & Applicability

The City is working to increase Electric Vehicle (“EV”) charging access throughout the City due to growing interest of residents in the City of Cambridge (“City”) who drive or are interested in driving EVs yet do not have access to reliable off-street charging solutions. To assist residents while the City explores longer-term EV charging solutions for single-family, multi-family, and mixed-use zones, the City has developed a trial permitting process for 2023-2024 (“Charging Pilot Program” or “CPP”) to explore allowing residents to charge in certain authorized sidewalk portions of public ways. The Charging Pilot Program requires participating residents to obtain a permit (“Permit”) for EV charging across a sidewalk area (“EV Charging Across Sidewalk”). EV Charging Across Sidewalk allows situating power cords, either on the ground or through the air, across a sidewalk area fronting a residential property, which area occupies the space between the residence’s property line parallel to the public way and the street portion of the public way (“Sidewalk Area”). As the City continues to expand EV charging solutions, the need for these Permits will be reduced and ultimately eliminated.




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Flexible lengths



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Offered with extra wide ramps for ADA Compliance, Elasco Cable Guards are constructed with a solid cast polyurethane base and lid that are connected by a reinforced fiberglass rod that won't rust or corrode. These cable ramps hold up against natural and man-made elements and are compliant with safety requirements.

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Made in the the USA, all our products are made using only the most premium materials.

Models available:

- Might Guard: Focuses on protecting larger size cables & hoses from heavy duty vehicle traffic.
- Ultra Guard: Offers an extra low profile.

Part #	Model	Design	Channel Size (Width x Height)	# of Channels	Picture	Price
MG2200-W	Mighty Guard	ADA Ramp	2" x 2"	2		\$ 349.99
UG5140-ADA	Ultra Guard	ADA Ramp	1.38" x 1.25"	5		\$ 211.50
UG5140-ADA-BLUE	Ultra Guard (Blue Ramps)	ADA Ramp	1.38" x 1.25"	5		\$ 211.50
UG5140-ADA-GLOW	Elasglo Guard	ADA Ramp	1.38" x 1.25"	5		\$ 259.20
UG5140-ADA-GLOW-BLUE	Elasglo Guard (Blue Ramps)	ADA Ramp	1.38" x 1.25"	5		\$ 211.50

Part #	Price	Quantity: <input type="text" value="1"/>	ADD TO CART

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