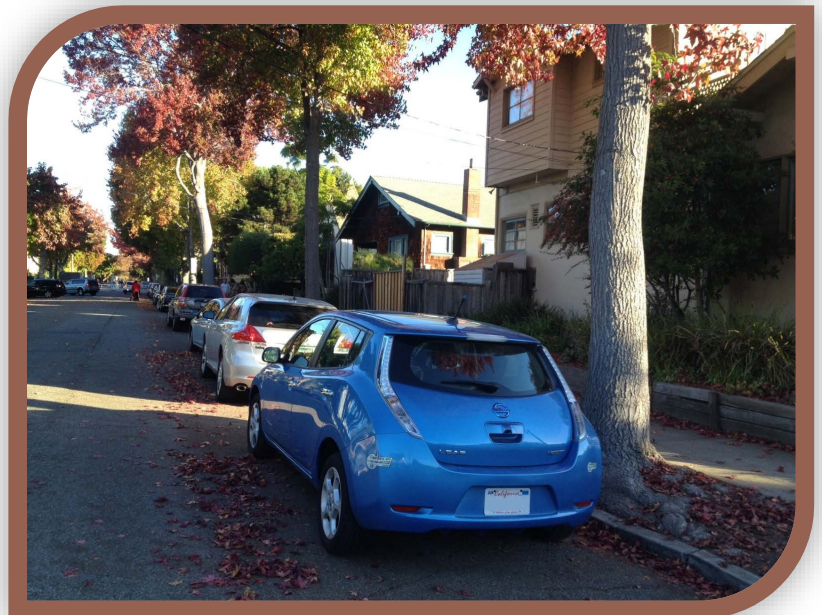




PLANNING & DEVELOPMENT DEPARTMENT
PUBLIC WORKS DEPARTMENT

Pilot Manual: Residential Curbside Electrical Vehicle (EV) Charging Pilot Program



Pilot Overview

Charging an electric vehicle at home is the most common, convenient, and economical place to refuel. The City of Berkeley has offered low cost, over-the-counter permits for installing home EV charging stations in an existing driveway or garage since 2013. However, Berkeley residents without off-street parking options were unable to safely, legally charge an electric vehicle at home until the launch of this Residential Curbside Electric Vehicle (EV) Charging Pilot Program (Pilot).

Berkeley City Council originally authorized this Pilot in December 2014 as a 3-year program to expand options for home charging including permitting for up to 25 curbside locations; in February 2018, City Council expanded the Pilot through December 2020. This Pilot allows participants to either create new space on their property for EV charging or to install EV charging stations at the curb by their home for use while parked on the street. The Pilot is testing whether these strategies can be an effective means of removing a barrier to EV adoption while also assuring that the public right-of-way continues to serve the general public.

Pilot applicants purchase and install charging stations at their expense, either on their property or at the curb, depending on the site. The installation of curbside charging stations will only be considered when on-site opportunities do not exist and cannot be created. A curbside EV charging station installed through this Pilot will not create any privilege or priority for use of the adjacent curbside parking. Additional detail on the actions of the City Council and Commissions to support and authorize and extend this Pilot can be found at Resolutions No. 66,707-N.S., No. 68,345-N.S., and No. 68,346-N.S.

The 11th Hour Project, a program of the Schmidt Family Foundation, granted funds to the City of Berkeley to support the launch of this Pilot. The 11th Hour Project's [press release](#) summarizes the City of Berkeley's program and the others selected to increase the adoption of EVs in urban areas.

Electric vehicles can play a critical role in reducing greenhouse gases. Electric cars have no tailpipe emissions and reduce related greenhouse gas emissions by 70 percent or more in our region. Emissions from cars and trucks account for over half of all greenhouse emissions in Berkeley. The City of Berkeley encourages EV use alongside biking, walking and transit as a means of reaching our ambitious, voter-driven [Climate Action Plan](#), which seeks to reduce community-wide greenhouse gas emissions by 80 percent from 2000 to 2050.

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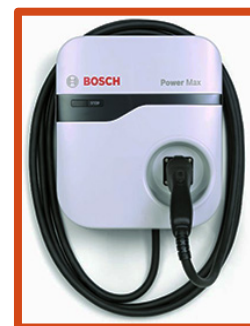
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Important Considerations

Driving an EV rather than a conventional car offers a range of potential benefits including reduced maintenance and fuelling costs, Federal and State incentives, and energy security. Before considering leasing or buying an EV, it is also critical to consider how and where you will charge the vehicle. You may be able to charge at your workplace or use public charging stations, mapped on sites such as plugshare.com or the [U.S. DOE Alternative Fueling Station Locator](http://www.eia.doe.gov), but most EV drivers charge at home.

This Pilot expands opportunities for charging an EV at homes that currently lack off-street parking. When starting to evaluate whether this Pilot is appropriate for you, it is important to understand what is involved. Here are some quick tips:

- ➔ **Talk with a licensed electrical contractor early in the process.** Level 2 charging stations appropriate for residential outdoor installations are currently priced at \$600 to \$2,000 or more, but the installation costs may be greater, particularly if long conduit runs, extensive trenching, or electrical upgrades to your home are required.
- ➔ **If EV charging can be accommodated on your property, a curbside EV charging station installation will not be considered.** Through participation in this Pilot you may be authorized to pursue the construction of a new curbside and space on your property for EV charging. This is likely to reduce your EV charging station installation costs compared to a curbside installation, but you will have costs related to the permitting, construction, and landscaping of a new space.
- ➔ **If a curbside EV charging station installation is the recommended option for your property, your installation expenses may be high.** Approved Pilot applicants have reported costs of \$5,000-\$20,000 to purchase and install curbside EV charging stations. Application and permitting fees total approximately \$2,500 for curbside installations.
- ➔ **Installation of a curbside charging station will not give you special rights or privileges to the street parking adjacent to the station.** Street parking will remain available to anyone. Any parking restrictions on your street, such as Residential Preferential Parking, will remain in effect.
- ➔ **Charging stations must be listed (i.e. UL) and certified for outdoor use.** Most Pilot participants will install Level 2 charging stations utilizing 240 volt AC power. Level 1 charging stations, using 120 volt AC power, with appropriate safety and enclosure specifications may also be used.

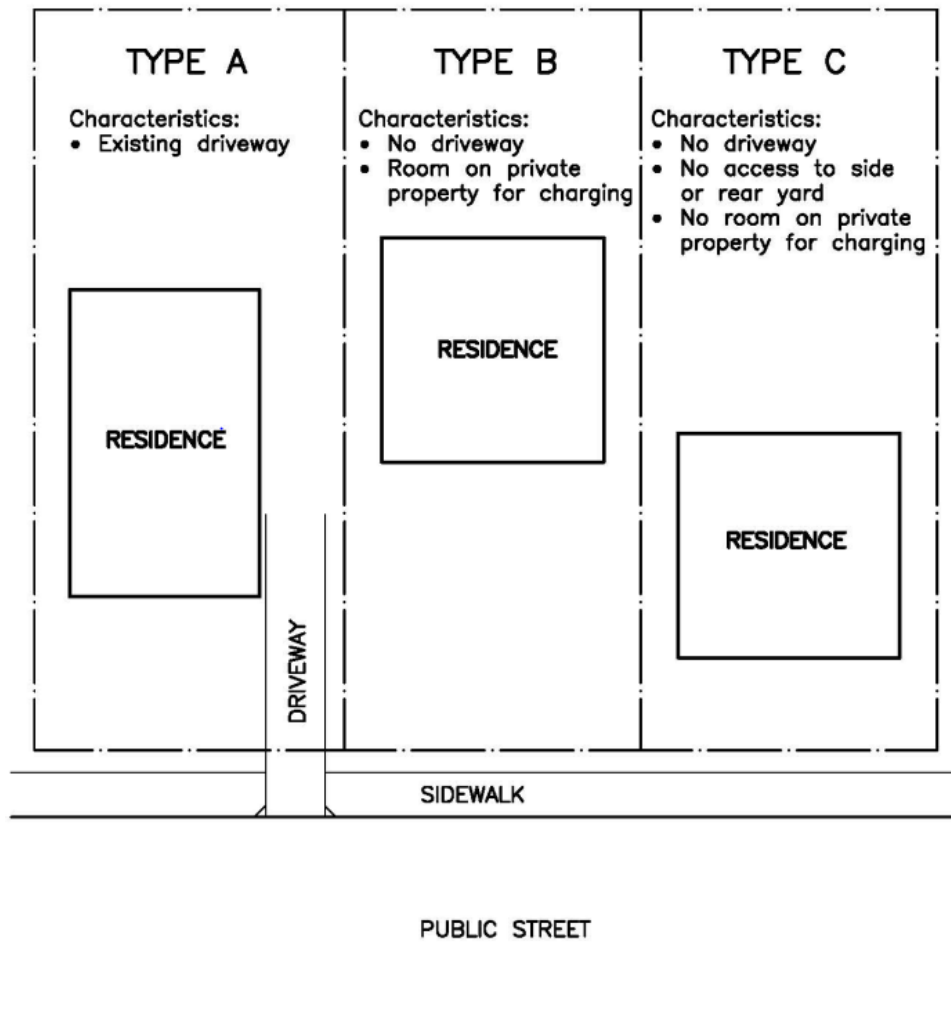


Examples of home Level 2 EV charging stations
(Images from <http://www.plugincars.com/quick-guide-buying-your-first-home-ev-charger-126875.html>)

Getting Started

Berkeley residential property owners who currently lack a parking space on their property for charging an EV are welcome to apply for this Residential Curbside EV Charging Pilot (Pilot). The Pilot is open to all types of residences (single-family, duplex, multifamily buildings, etc.). If you rent your home, you will need to coordinate with your landlord to participate; permits through this Pilot will be issued to the property owner. Pilot participants will need to already own or lease an EV or commit to doing so as part of participating in this Pilot.

Your steps for participation in this Pilot will depend on the characteristics of your property. The City process prioritizes placing EV charging stations on private property before considering a curbside location. Please remember that if your property already has a garage, parking lot, or driveway with space for a charging a vehicle, like the Type A diagram shown here, this Pilot is not appropriate. These simple diagrams represent typical situations, each of which are discussed in the following pages.

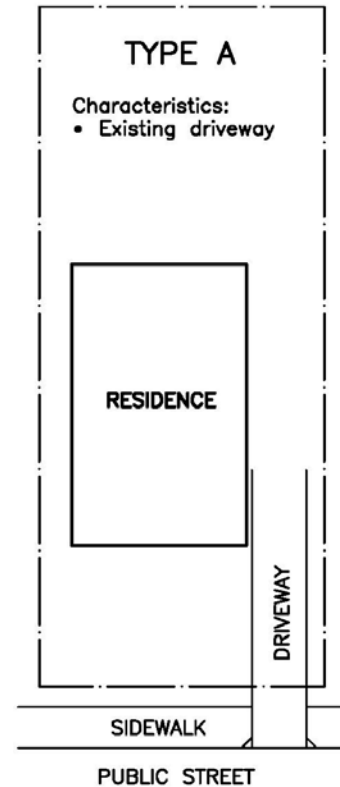


Skip the Pilot

If your home is like the Type A diagram, meaning that you already have a garage or driveway, chances are that you can already get a low-cost, same-day, electric permit to install an EV charging station at your home without participating in this Pilot. See [Residential EV Charging](#) for details and make an appointment at the [Permit Service Center](#) by calling (510) 981-7502 to submit electronic copies of your plans and receive an over-the-counter electrical permit or have your contractor use [Permits Online](#) to receive an EV Charging Station permit. This is your cheapest, fastest, and easiest option.

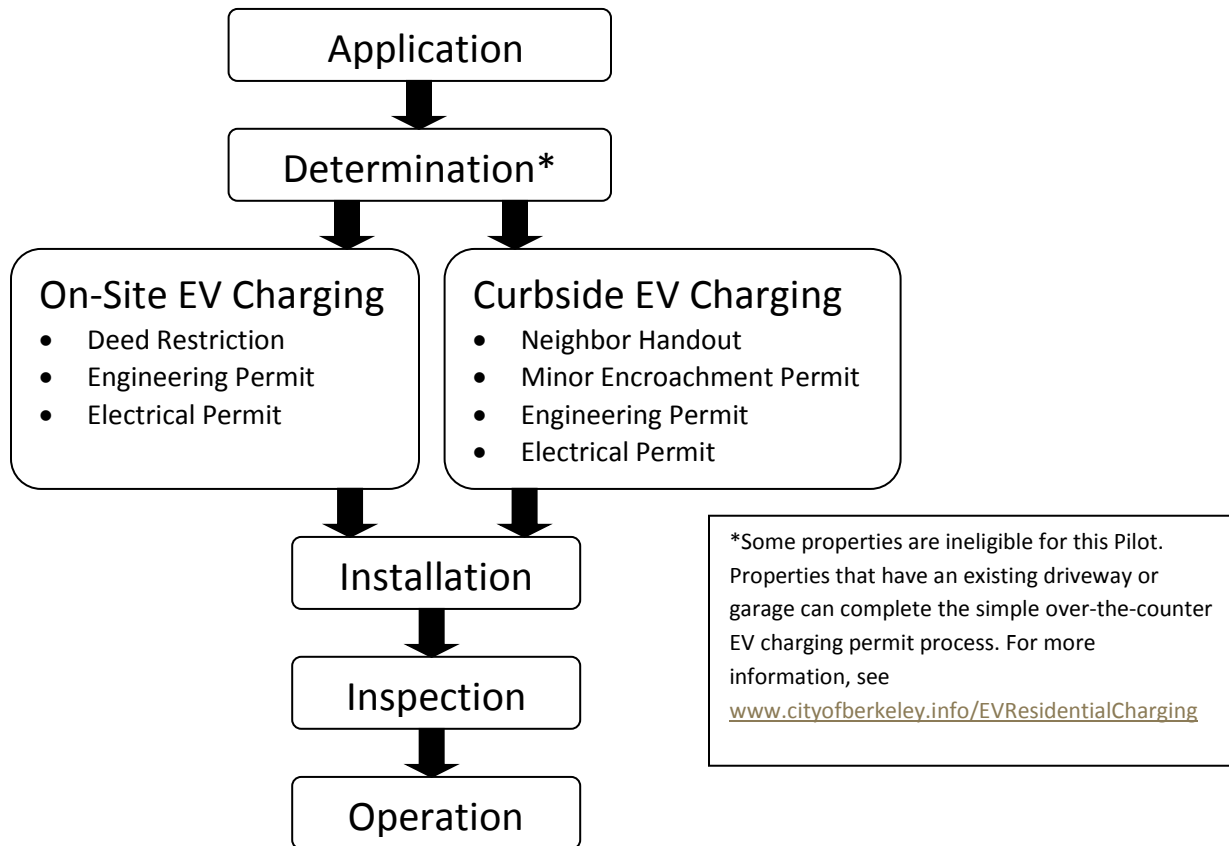


Berkeley home with an EV charging in an existing driveway



Steps in the Pilot Process

This chart provides a quick overview of the steps for participating in this Pilot. Each step is explained in detail in the following pages.



Step 1: Application Form

If your residential property lacks a driveway, like the Type B or Type C diagrams shown on p. 4, complete an [Application Form](#) as your first step in the Pilot process. This form provides details about the property and potential charging options. It will allow the City to make a determination of whether you are able to charge an EV on your property or are a candidate for curbside charging.

Be as complete as possible on your Application Form. The current application fee, \$397, covers the staff time associated with reviewing the application and property records, one or more site visits, and documenting the determination of Pilot eligibility. Subsequent steps in the application process are associated with permitting fees that cover the review, permitting, and inspection costs, and will vary depending the Pilot determination.

Step 2: Determination

The City of Berkeley Planning and Development Department, in coordination with the Department of Public Works and the Division of Forestry, will review your Application Form and issue a determination with details for your next steps. In making this determination, staff will look at specific characteristics of your property in combination with the hierarchy for residential charging established by the Transportation, Energy, and Public Works Commissions and adopted by City Council, available at Resolution No. 66,707-N.S.

Specifically, the City's policy is to promote charging on private property before considering the installation of a residential curbside charging station. Charging on your property, rather than in the street on the public right-of-way, gives you more control of your EV charging and minimizes potential conflicts with other utilities and uses of the public right-of-way. The determination will do one of the following:

- Direct you to a permitting process to construct a new curbcut and install an EV charging station and space on your property for home charging (see pp. 8-9), or
- Direct you to a permitting process to install a curbside EV charging station for charging in the street adjacent to your home (see pp. 10-14), or
- Request more information, such as site plan details or parking occupancy survey, before a determination can be made, or
- Inform you that you are not a candidate for this Pilot. Most likely this will be because you already have the opportunity to charge at home in your garage or driveway. In rare cases such as a narrow public right-of-way, home charging may just not be practical for you. If so, staff will be happy to share resources on public charging stations and workplace charging.

Step 3: Permit Application Process

Once you receive a determination letter, you will need to take steps to complete the permit application process identified for your home.

If you haven't already, contact a licensed electrical contractor to verify that your home electrical system can meet your charging needs. Make sure that you understand your likely equipment and installation costs and that your contractor understands the permitting process.



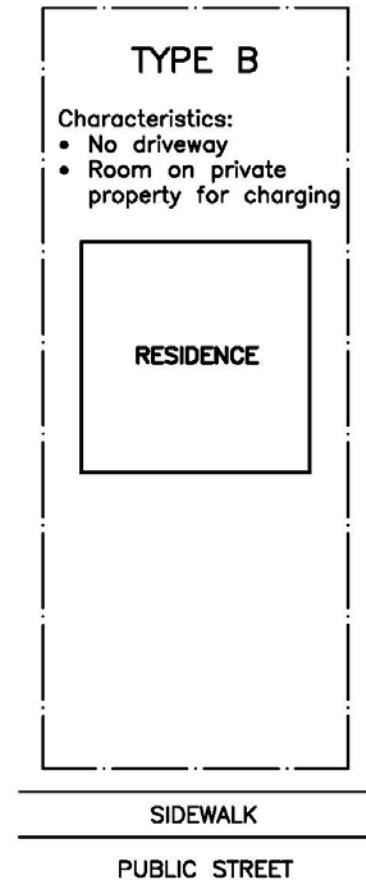
City of Berkeley Permit Service Center, 1947 Center Street, 3rd Floor

On-site Charging

The City's review of your [Application Form](#) may find that space exists, as illustrated in the Type B diagram, to charge an EV on your property. As shown, if any space exists at a property that could accommodate a vehicle (8 feet by 18 feet), it is likely to be in the front yard.

This Pilot allows participants to install a curbcut and driveway approach on the public right-of-way and construct a front yard space ("vehicle-related paving") for EV charging. This vehicle-related paving will not be considered an off-street parking space as set forth in the [Zoning Ordinance](#), Chapter 23D.12.080. Its use is deed restricted to charging a plug-in EV and its construction is only permitted through this Pilot. Property owners must sign and record a [Declaration of Restrictions on Use of Vehicle-Related Paving](#).

Note: *In rare cases, there may be adequate space on a property to create a new off-street uncovered parking space (rather than the restricted vehicle related paving) in a side or rear yard. If so, the new parking space would be established through a planning permitting process, most likely an Administrative Use Permit (AUP), and could be used for parking any type of vehicle. Please see the City of Berkeley's [Zoning Ordinance](#), Chapter 23D.12.080, and the [AUP process](#) for more detail.*



Design and Placement

There are a variety of elements that must be considered while designing the on-site charging space. Vehicle-related paving for EV charging through this Pilot should be constructed of a permeable surface. Unless otherwise directed by the City of Berkeley, the vehicle-related paving must provide a space of at least 8 feet by 18 feet (clear of the public right-of-way). In addition, a landscaping screening strip at least 2 feet wide between the paving and any adjacent rear or interior side lot line is required. Total paving must not exceed 50% of any front yard. Indicate these elements on site plans submitted for permitting.

Location of the curbcut and driveway approach will be reviewed by the City's Traffic Engineer. The City's determination letter in response to your Application Form may specify a location for your curbcut. In general, curbcuts should be placed to minimize the reduction of street parking and vegetation. Proper distances should be maintained between the curbcut and features in the public right-of-way including street trees, utility poles, and signs. Work conducted in the public right-of-way must adhere with the materials, designs, and construction methods detailed by the City (available at [Curbs, Gutters, Sidewalks, and Driveway Approaches Constructed under City Permits](#)).

Permit Application Submittals

The installation of vehicle-related paving for EV charging through this Pilot requires an engineering permit to construct a curbcut, driveway approach, and the vehicle-related paving. An electrical permit is needed to install the EV charging station. Engineering permits and electrical permits are granted at the

Permit Service Center (PSC) at 1947 Center Street, 3rd Floor. For questions and PSC appointments call (510) 981-7502. The PSC no longer accepts paper submissions. All documentation should be brought to the PSC in an electronic format; please see the PSC's [paperless policy](#) for details.

Engineering permit application packages must include, at a minimum:

1. [Engineering Permit Application](#)
2. [Declaration of Restrictions on Use of Vehicle-Related Paving](#)
This deed restriction limits the use of the vehicle-related paving for EV charging. It must be recorded at the Alameda County Clerk-Recorder; submit proof of recording with application.
3. A copy of your Determination Letter for this Pilot program
4. Site plan. Important elements include:
 - a. Dimensioned drawings with property lines, lot dimensions, building footprints, walkways, existing above-ground and underground utility infrastructure and underground laterals, sidewalks, curbs, and features in the planting strip.
 - b. The proposed location of the curbcut, driveway approach, vehicle-related paving, and landscaping screening strip should be dimensioned and called out with shading, hatching, or other methods. Photographs of existing conditions are encouraged.

The electrical permit application will be very similar to those submitted for [Residential EV Charging Stations](#) in garages and at driveways and may be combined with the engineering permit application.

Important: Simultaneous submission of the engineering and electrical permit applications is recommended; the engineering permit will not be issued until an electrical permit application is made.

Electrical permit application submittals include:

1. [Permit Application](#) (see the [Electric Vehicle Charging Checklist](#) for additional detail)
2. Site plan with property lines, proposed vehicle-related paving and EV charging station location, conduit routing, and location of electrical service
3. Existing electrical service size and number of meters; size, type, and material of conductors, associated wiring components, and conduit; single line diagram
4. Feeder or service load calculations for EV charging stations requiring more than a 40 amp overcurrent protective device
5. Manufacturer's specifications and installation guidelines for the EV charging station including the approved product listing agency (i.e. UL) number

Important: Construction must comply with all applicable local regulations, including the City of Berkeley Zoning Ordinance and Berkeley Municipal Code, which includes the California Electrical Code.

Estimated Fees

Permitting fees are minimized by submitting complete, clear documentation. The fees indicated here represent estimated minimum permitting costs for construction of a new curbcut, driveway approach, vehicle-related paving for EV charging, and installation of an on-site EV charging station.

Engineering Permit.....	\$214
Traffic Engineering Review (30 minutes).....	\$80
Electrical Permit.....	\$127
Plan Check (30 minutes).....	\$85

Curbside Charging

The City's review of your [Application Form](#) may find that no space exists on your property to construct an off-street parking space for EV charging, as illustrated in the Type C diagram. In this case, you will be directed to a permitting process to install a curbside EV charging station in the planting strip adjacent to your home to be used while parked on the street.

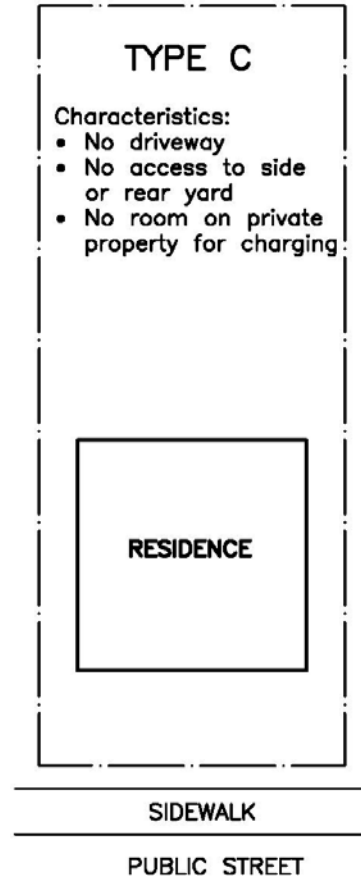
The minor encroachment permit process will be used to permit residential curbside charging stations through this Pilot when no opportunities for charging exist on private property. Encroachment permits, applicable to structures built in the public right-of-way, are only issued in very limited situations.

The EV charging station will be connected to your home electrical service, as it would be if the station was located on your private property. Conduit will be run from your electrical panel to the EV charging station located in the planting strip adjacent to the curb. The conduit must be underground in the public right-of-way, including under the sidewalk, and it is likely that trenching will also be required on your private property.

Important: Conduit for the EV charging station must be routed directly from the curbside EV station to the property line, perpendicular to and under the sidewalk. Conduit within the public right of way must be minimized and must not be routed parallel to the sidewalk or curb within the planting strip or on public land behind the sidewalk.

Please work with a licensed electrical contractor to understand your options; all installations for this Pilot must be performed by a licensed contractor.

Curbside EV charging station installations through this Pilot may be either Level 1 (120 volt) or Level 2 (240 volt), but must meet all the requirements of the current [California Electrical Code](#). Article 625 of the California Electrical Code specifies that outdoor installations of electric vehicle supply equipment (EV charging stations) must be permanently connected and fastened in place with no exposed live parts. Charging stations must be listed by an approved product listing agency (i.e. UL), rated for outdoor use, and installed in accordance with the manufacturer's specifications.



Public Outreach

It is your responsibility to share information about your project with neighbors before submitting your minor encroachment permit application so that they have an opportunity to ask questions and understand the process. You must review, complete, and distribute the [Neighbor Handout](#) to all households on the block (both sides of the street) where the charging station is proposed prior to applying for a permit.

Please understand your responsibilities and limitations before talking to your neighbors. The cost of purchasing, installing, using, and maintaining a curbside EV charging station are all paid by the homeowner (or in combination with a tenant, if applicable). It is the responsibility of the property owner to maintain the charging station, and any associated safety enclosure, in good, safe repair. The property owner must be the minor encroachment permit applicant.

As part of the minor encroachment permit process, notices about the proposed EV charging station will be posted on your block by the City. This will allow neighbors a formal opportunity to make comments on the project.

A minor encroachment permit is revocable. The City may take action to revoke the permit in cases such as safety concerns related to the EV charging station or on-going parking issues adjacent to the EV charging station that result in enforcement calls to the City. If the minor encroachment permit is revoked, it will be the property owner's responsibility to remove the EV charging station and its associated equipment, conduit, and wiring from the public right-of-way and restore the right-of-way to its original condition.

The parking space that is adjacent to a curbside EV charging station is available to anyone. Any parking restrictions on your street, such as Residential Preferential Parking, will remain in effect. You will not have any exclusive rights, privileges, or priority for parking adjacent to an EV charging station and should not state or imply such. A sign/sticker will also be posted on the curbside EV charging station clarifying that it is a private installation, but that the parking space is available to the public. If you know that it is difficult to park adjacent to your home or you foresee issues that would limit your access a curbside EV charging station on a regular basis, please consider whether it makes sense for you to participate in this Pilot.

Curbside EV Charging Station Use

The City anticipates that most Pilot participants will install residential curbside EV charging stations for personal use. Use of the charging station will be controlled either by a safety enclosure around the charging station or cord that is locked while the station is idle or by a power disconnect switch located near the electrical panel, or a combination.

If you wish to make a residential curbside EV charging station open to the public, its placement and location must be accessible (ADA compliant) and available, free of charge, at all times. If this is of interest, please let us know early in your application process so that we can work with you on creating an accessible design.

Placement and Design

As you work with a licensed contractor to develop plans for the installation of a curbside EV charging station, follow these guidelines:

Placement:

- Avoid conflicts with other utility infrastructure (existing utilities and laterals must be shown on site diagram for permit application)
- At least 6 feet from street trees, fire hydrants, and utility poles
- Avoid interference with vehicular sight lines at street corners or driveways
- Minimize the removal of vegetation
- Maximize the number of parking spaces it could serve
- EV charging station cords may not cross sidewalks, walkways, or driveways
- At least 18 inches from the face of the curb (in the planting strip if one is present)
- Preserve as much sidewalk width (path of travel) as possible, but no less than 3 feet

Design:

- Position the EV charging station such that the stored connector is at a height of 24 inches to 48 inches above the parking surface (Electrical Code, Article 625.30(B))
- Consider an enclosure or cage around the EV charging station to protect and control its use; if the charging station is not fully enclosed, the charging station cord and connector must be secured when not in use
- Orient the EV charging station such that an enclosure door will not open past the curb face or over the sidewalk
- Minimize the size of any enclosure around a charging station or cord
- Colors and materials for any enclosure should minimize their visibility and integrate with the design of surrounding buildings and landscaping
- No advertising is permitted on the charging station or associated enclosure. The City of Berkeley will place an informational sign/sticker on the charging station.



Example of a safety enclosure in the public right-of-way in Berkeley; Pilot applicants have the option of using a similar enclosure for charging stations

Permit Application Submittals

The installation of a curbside EV charging station through this Pilot requires a minor encroachment permit, an engineering permit for excavation and construction in the public right-of-way, and an electrical permit to install the EV charging station.

Minor encroachment permit applications require, at a minimum:

1. Distribution of the [Neighbor Handout](#) to all dwelling units on the block (both sides of the street)
2. [Encroachment Permit Application](#)
3. Site plans showing the building footprint, proposed location of the encroaching EV charging station and conduit layout, and the distance between the station and each of the following features, which should also be shown on the plans: existing onsite electrical service location, front property line, sidewalk, curb, street trees, and any existing utility infrastructure such as water meters, sewer cleanouts, and drainage pipes. Also include widths of the following features: the public right-of-way (property line to curb), existing sidewalk, planting strip, and/or the area between the sidewalk and curb.

Important: Conduit for the EV charging station must be routed directly from the curbside EV station to the property line, perpendicular to and under the sidewalk. Conduit within the public right of way must be minimized and must not be routed parallel to the sidewalk or curb within the planting strip or on public land behind the sidewalk

4. Elevation and cross section views of the encroaching EV charging station with height and width dimensions. Include the conduit, property line, sidewalk, planting strip, curb, and the distance from the edge of the charging station to the sidewalk and curb.

There is a two week posting period for minor encroachment permit applications. During this posting period, the public has the opportunity to submit questions, comments, and objections to the proposed encroachment. The City's Manager of Engineering will consider all responses when making the decision to deny or approve the encroachment permit. Primarily, the approval of an encroachment permit is dependent on the demonstration that it conforms with the standards in BMC, Chapter 16.18.080, as detailed in the [Encroachment Permit Application](#).

The minor encroachment permit will include conditions for installation, maintenance, and provisions for removal. Conditions will also include requirements to indemnify the City for any harm arising out of installation, use, or misuse of the EV charging station. Encroachment permits must be recorded at the Alameda County Clerk-Recorder; proof of the recording must be returned to the City.

Engineering permit requires, at a minimum:

1. [Engineering Permit Application](#)
2. A copy of your Determination Letter for this Pilot program
3. A copy of the recorded encroachment permit for this Pilot program
4. Site pans as prepared for the minor encroachment permit

Electrical permit application and submittals include:

1. [Permit Application](#) (see the [Electric Vehicle Charging Checklist](#) for additional detail)
2. Site plan with property lines, proposed vehicle-related paving and EV charging station location, conduit routing, and location of electrical service
3. Existing electrical service size and number of meters; size, type, and material of conductors, associated wiring components, and conduit; single line diagram
4. Feeder or service load calculations for EV charging stations requiring more than a 40 amp overcurrent protective device
5. Manufacturer’s specifications and installation guidelines for the EV charging station including the approved product listing agency (i.e. UL) number

Important: Simultaneous submission of the engineering and electrical permit applications is recommended; the engineering permit will not be issued until an electrical permit application is made.

Engineering permits and electrical permits are granted at the Permit Service Center (PSC) at 1947 Center Street, 3rd Floor. For questions and PSC appointments call (510) 981-7502. The PSC no longer accepts paper submissions. All documentation should be brought to the PSC in an electronic format; please see the PSC’s [paperless policy](#) for details.

Important: Construction must comply with all applicable local regulations, including the City of Berkeley Zoning Ordinance and Berkeley Municipal Code, which includes the California Electrical Code.

Estimated Fees

Permitting fees are minimized by submitting complete, clear documentation. The fees indicated here represent estimated minimum costs.

Minor Encroachment Permit (application)	\$454
Minor Encroachment Permit (final fee)	\$1,228
Engineering Permit (includes base fee, misc. permit inspection, 100 square feet of concrete, technology and filing fees)	\$345
Electrical Permit.....	\$127
Plan Check (30 minutes).....	\$85

Step 4: Installation

Once you have obtained your permits, for either an on-site or curbside EV charging station, you are ready to install the station and any corresponding features. City of Berkeley Building and Safety staff will inspect the EV charging station and Public Works staff will inspect the construction in the public right-of-way. Once your inspections are final, you are ready to charge!

Step 5: Operation

It is your responsibility to operate your EV charging station in keeping with the conditions of its permits. For curbside locations, maintaining a safe EV charging station is particularly critical. It must be operated in a way that minimizes potential trip hazards associated with the cord including safely storing the cord and connector while not actively being used for EV charging. Failing to keep up with these obligations could result in the City revoking your minor encroachment permit for the EV charging station.

We welcome feedback about the permitting, installation, and operation of your EV charging station installed through this Pilot. The City of Berkeley is interested in learning more about the importance of home charging and whether this Pilot successfully encourages EV adoption in our community. You may be asked to respond to City surveys about your experience that will assist with assessments and studies of the Pilot and will help determine our City's permanent policy and inform decision-making in other communities.

Attachments

The following specialized forms, for use with this Pilot Program, are available on the City of Berkeley's website for this [Residential Curbside Electric Vehicle Charging Pilot](#) and are also attached to this Manual:

[Application Form](#)

[Declaration of Restrictions on Use of Vehicle-Related Paving](#)

[Neighbor Handout](#)

[Encroachment Permit Application](#)



PLANNING & DEVELOPMENT DEPARTMENT
PUBLIC WORKS DEPARTMENT

Application Form: Residential Curbside Electric Vehicle (EV) Charging Pilot

This Application Form is the first step in participating in the Curbside Electric Vehicle (EV) Charging Station Pilot. It should be completed by the by the property owner of the residence where a home EV charging station is desired. This Pilot allows for new opportunities for home charging on private property as well as residential curbside EV charging station installations for charging on the street. Please answer each question as completely as possible. The application fee for this Pilot is currently \$397.

Applicant (Property Owner) Information

Name: _____

Phone Number: _____ E-mail: _____

Mailing Address: _____
Number Street Name Apt. # City Zip Code

Property Information

Address for the residence where home EV charging is desired, if different from mailing address:

Number Street Name Apt. # City Zip Code

Does this property have a curbscut for a driveway? Yes ___ No ___

Does this property have a driveway? Yes ___ No ___

If a driveway is present, is it shared with a neighboring property? Yes ___ No ___

Does the property have a garage, parking space, or parking lot? Yes ___ No ___

Important: If the answer is “yes” to any of the questions above, this property is unlikely to be eligible for the Pilot, even if the current condition of the curbscut, driveway, and/or garage does not support use. Please see details on pp. 4-5 of the Pilot Manual. The only case in which a property with an existing curbscut, driveway, and/or garage may be eligible for the Pilot is if there has been a permitted land use change and no other off-street parking exists at the property. If this is the case for this property, please describe and attach supporting documentation:

The Pilot prioritizes creating a new space for charging on private property (an on-site space) over authorizing a curbside charging space. Does this property have a width of at least 8 feet (an additional 2

feet for a landscaping strip is needed if adjacent to the neighboring property) and a length of 18 feet beyond the public right-of-way available in the front yard or elsewhere on the property? Provide details:

Do you typically park on the street when at this property? Yes ___ No ___

Approximately what percentage of the time is street parking available directly adjacent to this property when you arrive (20%, 50%, 70%, etc.)? _____

Do neighbors tend to park on the street or in off-street spaces? Please describe:

If there is other information about your property that you think influences your EV charging opportunities, provide details here.

Site Plan

Attach a simple site plan (hand-drawn is acceptable) that shows the property footprint, location of the electrical service, and labeled depth dimensions of the front yard (house/porch to property line or sidewalk), sidewalk, and planting strip. Photographs are also encouraged.

Electric Vehicle Information

Do you currently own or lease an electric vehicle? Yes ___ No ___

If no, you or your tenant, if applicable, must commit to buying/leasing an EV to participate in this Pilot. Are you willing to make this commitment? Yes ___ No ___

Next Steps

After you submit this Application Form, the City will evaluate conditions at the property and issue a Determination with details for your next steps. City staff will visit your property; this visit will be made from the public right-of-way unless an appointment is made with you in advance.

Sign and date this form below, indicating that the information on this form is true and complete, to the best of your knowledge.

Applicant's Signature: _____ Date: _____

Mail a check for \$397 (application fee), made payable to the **City of Berkeley**, along with this form, site plan, and any other associated documentation to: City of Berkeley Planning Department, Office of Energy & Sustainable Development, Attn: Sarah Moore, 1947 Center St, 1st Floor, Berkeley, CA 94704.

Contact Sarah Moore at smoore@cityofberkeley.info or (510) 981-7494 with questions about this Pilot.

Recording Requested By:
City of Berkeley
Planning & Development Department

WHEN RECORDED SUBMIT TO:

Director of Planning & Development
City of Berkeley
Planning & Development Department
1947 Center Street, 2nd Floor
Berkeley, CA 94704

THIS SPACE FOR RECORDER'S USE ONLY

INSTRUCTIONS: After having this form notarized, take it to the Alameda County Clerk-Recorder at 1106 Madison St., Rm. 101, Oakland, CA 94607. One (1) copy of the fully executed form must be returned to the City of Berkeley at the address above. For further information on the Clerk-Recorder's office, call 510-272-6362, or visit www.co.alameda.ca.us/auditor/clerk

DECLARATION OF RESTRICTIONS ON USE OF VEHICLE-RELATED PAVING:

Notice is hereby given that the Engineering Permit which will authorize the creation of a curbcut and driveway approach to vehicle-related paving to be used for charging a plug-in electric vehicle (EV) on the property located at _____, Berkeley, California, is contingent on restrictions as described here. The property owner, a participant in the City of Berkeley's Residential Curbside Electric Vehicle Charging Pilot Program, acknowledges that he or she will abide by and notify future property owners of the requirements that:

- The vehicle-related paving on the property may only be used for charging a plug-in EV;
- The vehicle-related paving on the property is not an off-street parking space as set forth in the Zoning Ordinance, Berkeley Municipal Code Chapter 23D.12 and may therefore not be used for any purpose other than charging a plug-in EV; and
- If the vehicle-related paving on the property is no longer being used for EV charging, the property owner must remove the driveway approach and replace the curbcut with a normal curb in accordance with BMC 16.04.150. Such work shall be done in conformity to the City of Berkeley standards for construction.

This deed restriction may not be removed from this property without the prior written consent of the City of Berkeley.

LEGAL DESCRIPTION:

Land herein referred to is situated in the State of California, City of Berkeley, County of Alameda, with APN _____.

OWNER(S) OF RECORD:

Print Name: _____ Print Name: _____

Signature: _____ Signature: _____

DATED: _____, 20____ County of Alameda, State of California

NOTARY USE ONLY:

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

On _____, 20__ before me, _____, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under *PENALTY OF PERJURY* under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal: _____
(Signature of Notary)



PLANNING & DEVELOPMENT DEPARTMENT
PUBLIC WORKS DEPARTMENT

Neighbor Handout: Residential Curbside Electric Vehicle (EV) Charging Pilot

_____ Date

Your neighbor at _____ is applying to install an electric vehicle (EV) charging station at the curb adjacent to their home, as a participant in the City of Berkeley's Residential Curbside Electrical Vehicle (EV) Charging Pilot. The charging station will allow your neighbor to charge their electric vehicle while it is parked on the street. The adjacent street parking will remain available to everyone. The charging station will belong to your neighbor and the City of Berkeley will permit its installation near the curb, in the planting strip. The permitting process requires that the charging station be safely installed and properly maintained. Curbside installations are only allowed when EV charging cannot be accommodated on private property.

Applicant's address

What is an electric vehicle charging station and is it safe?

An electric vehicle charging station is a "box" and a special cable designed for safe transfer of electricity to an electric vehicle. The charging station contains special electronics that sense when the cable has been connected to an EV and only allows electricity to flow through the cable while connected to the vehicle. Most home charging stations provide "Level 2" charging at 240 volt AC power. Level 2 charging typically adds 10-15 miles of range to an EV per hour of charging.



Examples of electric vehicle charging stations, also known as electric vehicle supply equipment

Charging stations have built-in safety protection that are tested and certified to national codes and standards. They are safe to operate, even in wet weather. The special cable of the charging station has a standardized connector, known as SAE J1772, which can only be plugged into an electric vehicle. As a safety feature, no electricity can flow to the cable or connector unless it is properly plugged into an electric vehicle.



SAE J1772 electric vehicle connector (and inlet that would be present on an EV)

Does this mean that I won't be able to park on the street near this charging station?

No. The charging station will belong to your neighbor for their personal use, but the street parking near the charging station will remain available to anyone. Any parking restrictions on your street, such as Residential Preferential Parking, will remain in effect. Your neighbor hopes to be able to park near the charging station in order to charge their electric vehicle on a regular basis, most likely overnight while electrical demands and rates are low, but does not have any exclusive rights to the street parking. Streets are a shared, public resource.

Who is paying for this?

Your neighbor. The cost of purchasing, installing, using, and maintaining the electric vehicle charging station are all paid by your neighbor.

Why does my neighbor want to drive an electric vehicle?

Please ask your neighbor. Some of their reasons may include:

- ✓ Vehicle fueling and maintenance savings
- ✓ State and Federal incentives for the purchase/lease of EVs
- ✓ Driving and safety benefits
- ✓ Environmental benefits
- ✓ Energy security

Why is the City of Berkeley offering this Residential Curbside EV Charging Pilot?

The City of Berkeley promotes the adoption of electric vehicles as one means of reaching our ambitious Climate Action Plan goal of reducing community-wide greenhouse gas emissions by 80% below year 2000 levels by 2050. As a local government, the City of Berkeley is focused on efforts that make charging EVs in our community easier and more convenient. The majority of EV charging (80% or more) happens at home, but Berkeley has many homes that lack garages or driveways for off-street charging. Berkeley City Council directed the development of this Pilot in response to interest from citizens. The 11th Hour Project, a program of the Schmidt Family Foundation, awarded funding to support this Pilot in recognition that it is an innovative means of addressing a barrier to EV adoption in urban areas.

Who can I contact for more information, concerns, or questions?

You will have a formal period for comment on this project through a posted notice prior to the City permit being issued. In the meantime, your questions are welcomed by:

Applicant's Name

Address

Phone

E-mail

Sarah Moore
 Office of Energy and Sustainable Development
 City of Berkeley
 1947 Center St, 1st Floor
 Berkeley, CA 94704
 (510) 981-7494
smoore@cityofberkeley.info
www.CityofBerkeley.info/evcurbside



PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Encroachment Permit Application: Residential Curbside Electric Vehicle (EV) Charging Pilot

Project Address: _____

Property Owner Name: _____

Property Owner Address: _____

Phone Number: _____ E-mail: _____

Project Description: Briefly describe the nature of your project and reasons for encroachment.

BMC Section 16.18.080 Approval Criteria: No encroachment shall be approved unless it is determined that the subject encroachment conforms with the following standards. Describe how the proposed encroachment meets the seven approval criteria below.

A. The applicant will be substantially damaged by the refusal to grant the permit as requested.

B. No other reasonable method of obtaining the desired results is available except as proposed.

C. The granting of the permit will not be materially detrimental to the public interest, safety, health and welfare or injurious to the other property.

D. The applicant has complied with the City of Berkeley’s public works specifications.

E. No major or minor encroachment into a sidewalk may be granted unless a minimum clear space of six feet remains open for public use in the sidewalk area. For the purposes of determining the clear space, poles, parking meters, fire hydrants, regulatory signs, and other such objects (street hardware) may not be considered as part of the minimum horizontal clear space reserved for public use. Except for subsurface encroachments of tiebacks and soil nails, in no event may a minor encroachment extend farther than two feet from the property line into the public right-of-way.

F. All encroachments, except for structures below the walkway such as basement vaults and sidewalk elevators, shall have a minimum height of twelve inches and no portion shall project beyond the base projection of the encroachment unless at a height of eight feet or more above the sidewalk.

G. There should be a clear color differentiation between the sidewalk paving and objects placed or installed in the sidewalk area.

Sign and date this form, indicating that the information on this form is true and complete, to the best of your knowledge. Your signature also verifies that you have distributed the Neighbor Handout for the Residential Curbside Electric Vehicle (EV) Charging Pilot to all households on both sides of the block where the proposed EV charging station will be located.

Applicant Signature and Date: _____

Submit this completed application along with submission requirements (see following page) to:

Vincent Chen
Engineering Division
1947 Center St, 4th floor
Berkeley, CA 94704
(510) 981-6409

Required Submittals

At a minimum, the following submittals will be required for a minor encroachment permit application as part of the Residential Curbside EV Charging Pilot:

1. Four hard copies (or an electronic copy) of a site plan (8.5"x11") showing the building footprint, proposed location of the encroaching EV charging station and conduit layout, and the distance between the station and each of the following features, which should also be shown on the plans: existing onsite electrical service location, front property line, sidewalk, curb, street trees, and any existing utility infrastructure such as water meters, sewer cleanouts, and drainage pipes. Also include widths of the following features: the public right-of-way (property line to curb), existing sidewalk, planting strip, and/or the area between the sidewalk and curb.

Important: Conduit for the EV charging station must be routed directly from the curbside EV station to the property line, perpendicular to and under the sidewalk. Conduit within the public right of way must be minimized and must not be routed parallel to the sidewalk or curb within the planting strip or on public land behind the sidewalk.

2. Four hard copies (or an electronic copy) of elevation and cross section views (8.5"x11") of the encroaching EV charging station with height and width dimensions. Include the conduit, property line, sidewalk, planting strip, curb, and the distance from the edge of the charging station to the sidewalk and curb.
3. Fees
 - a. An application fee of \$454
 - b. A final fee of \$1,228, payable if the permit is approved

Minor encroachment permits are approved by the Manager of Engineering. See Chapter 16.18 of the [Berkeley Municipal Code \(BMC\)](#) for further detail.