

**12. APPROVAL OF FUNDING FOR THE INSTALLATION OF ELECTRIC VEHICLE (EV) CHARGING INFRASTRUCTURE AT HOLBROOK-PALMER PARK THROUGH PENINSULA CLEAN ENERGY'S EV READY PROGRAM**

**Report: Recommendation:** It is recommended that the Council discuss and decide if the Town should allocate \$300,000 to install EV Charging Infrastructure at Holbrook-Palmer Park through Peninsula Clean Energy's EV Ready Program

*Description:*



## Item No. 12 Town of Atherton

### **CITY COUNCIL STAFF REPORT – REGULAR AGENDA**

**TO:** HONORABLE MAYOR AND CITY COUNCIL

**FROM:** RACHAEL LONDER, MANAGEMENT ANALYST II

**DATE:** FEBRUARY 21, 2024

**SUBJECT:** Approval of Funding for the Installation of Electric Vehicle (EV) Charging Infrastructure at Holbrook-Palmer Park through Peninsula Clean Energy's EV Ready Program

### **RECOMMENDATION**

It is recommended that the Council discuss and decide if the Town should allocate \$300,000 to install EV Charging Infrastructure at Holbrook-Palmer Park through Peninsula Clean Energy's EV Ready Program

### **BACKGROUND**

Electric vehicle (EV) adoption is soaring; nearly 50 percent of personal vehicles purchased last year in San Mateo County were electric. About one of every seven, or 14%, of Atherton's 6,261 vehicles are electric, supporting the Town in reaching its climate action goals of a 49% reduction of 2005 greenhouse gas emissions by 2030. In alignment with this broad community interest, the State's goal to have all new vehicles sold be electric by 2035 and the Town's Climate Action Plan, the Town installed two EV chargers with the capacity to charge four vehicles at a time as a part of the new Town Center. These stations were activated in August 2022 and now have an average of 50 monthly charging sessions.

There remains an opportunity to install chargers at Holbrook-Palmer Park that can be shared by residents and employees and set up the Atherton fleet for the transition to EVs. The Town's Department of Public Works initiated a study with Peninsula Clean Energy, San Mateo County's not-for-profit, community-led electricity provider, through their EV Ready Program. In the Spring of 2022, Peninsula Clean Energy provided Atherton with free site design assistance and generated a Charging Evaluation Report for EV charging at three sites in Holbrook-Palmer Park. In addition to design assistance, Peninsula Clean Energy is offering funding of up to \$5,000 per Level 2 charging connector. On April 19, 2023, the Council approved \$60,000 to install four chargers with eight charging ports at Location 1 and Location 2 (see Table 1). Staff released a Request for Proposals, and all four responses exceeded the cost estimate provided by Peninsula Clean Energy and approved by the Council. Peninsula Clean Energy shared two potential reasons for higher costs than initially scoped in the Charging Evaluation Reports – 1) They likely used a cheaper alternative

to ChargePoint for Level II charging in their estimation, and 2) Labor costs have escalated since the reports were completed on April 28, 2022.

## **ANALYSIS**

The Council reviewed the Charging Evaluation Reports for the three locations in Holbrook Palmer Park and selected to move forward with the Entry Lot and Jennings Pavilion during the April 19, 2023, Council Meeting. The full reports for the Entry Lot and Jennings Pavilion are attached and are summarized in Table 1. Additionally, staff have provided a truer cost for each location based on the RFP that closed in November 2023.

*Table 1. EV Charger Locations in Holbrook Palmer Park*

Location	Original Estimates from Peninsula Clean Energy (PCE)	Updated Estimates Based on RFP
Entry Lot	Four Level 2 Ports Estimated Cost - \$44,000 PCE Rebates - \$20,000 <b>Total Net Cost to Town - \$24,000</b>	Four Level 2 Ports Estimated Cost - \$150,000 PCE Rebates - \$20,000 <b>Total Net Cost to Town - \$130,000</b>
Jennings Pavilion	Four Level 2 Ports Estimated Cost - \$50,000 PCE Rebates - \$20,000 <b>Total Net Cost to Town - \$30,000</b>	Four Level 2 Ports Estimated Cost - \$150,000 PCE Rebates - \$20,000 <b>Total Net Cost to Town - \$130,000</b>

As currently budgeted by the Council (\$60,000), the Town cannot move forward with installing any Level II chargers as scoped in Peninsula Clean Energy's Charging Evaluation Reports. The Council may approve funding of up to \$300,000 to complete the installation of chargers as decided during the Regular City Council Meeting on April 29, 2023. Once funding is approved, staff will conduct a formal, competitive procurement procedure, including coming back to the Council to execute a contract once a vendor is selected.

## **FISCAL IMPACT**

The funding offered by Peninsula Clean Energy covers \$5,000 per charging port installed. The Town would be required to pay the additional amount needed to install 8 charging ports at the Entry Lot and Jennings Pavilion. It is recommended that the Town budget \$300,000 for this project.

## **GOAL ALIGNMENT**

This Report and its contents are in alignment with the following Council Policy Goals:

- Goal Area F – Be Forward-Thinking, Well-Managed, and Well-Planned

## **POLICY FOCUS**

In 2006, the California state legislation passed Assembly Bill (AB) 32, California's Global Warming Solutions Act of 2006. AB 32 committed the state to reduce its greenhouse gas emissions (GHG) to 15 percent below 2005 levels by 2020. Local jurisdictions across California, including the Town of Atherton, adopted a local Climate Action Plan (CAP) to assist with the State's effort to reduce GHG emissions. The Town's Climate Action Plan first adopted on October 19, 2016 exceeded this 2020 goal by reducing GHG emissions by 27% below 2005 levels by 2019. The single largest contribution to achieving this goal was creating and participating in Peninsula Clean Energy. In September of 2016, the California legislature approved Senate Bill (SB) 32, which extends the state's targets for reducing greenhouse gas from 2020 to 2030. Under SB 32, the state will reduce greenhouse gas emissions to 49% below 2005 levels by 2030.

Now that Atherton has 100% GHG-free electricity and directive with SB 32, the Town has updated the CAP to further reduce emissions by identifying strategies for electrifying transportation and buildings. Installing EV chargers at Holbrook-Palmer Park will support achieving the Town's climate goals by enabling more community members to drive electric vehicles.

### **PUBLIC NOTICE**

Public notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting in print and electronically. Information about the project is also disseminated via the Town's electronic News Flash and Atherton Online. There are approximately 1,200 subscribers to the Town's electronic News Flash publications. Subscribers include residents as well as stakeholders –to include, but be not limited to, media outlets, school districts, Menlo Park Fire Protection District, service providers (water, power, and sewer), and regional elected officials.

### **COMMISSION/COMMITTEE FEEDBACK/REFERRAL**

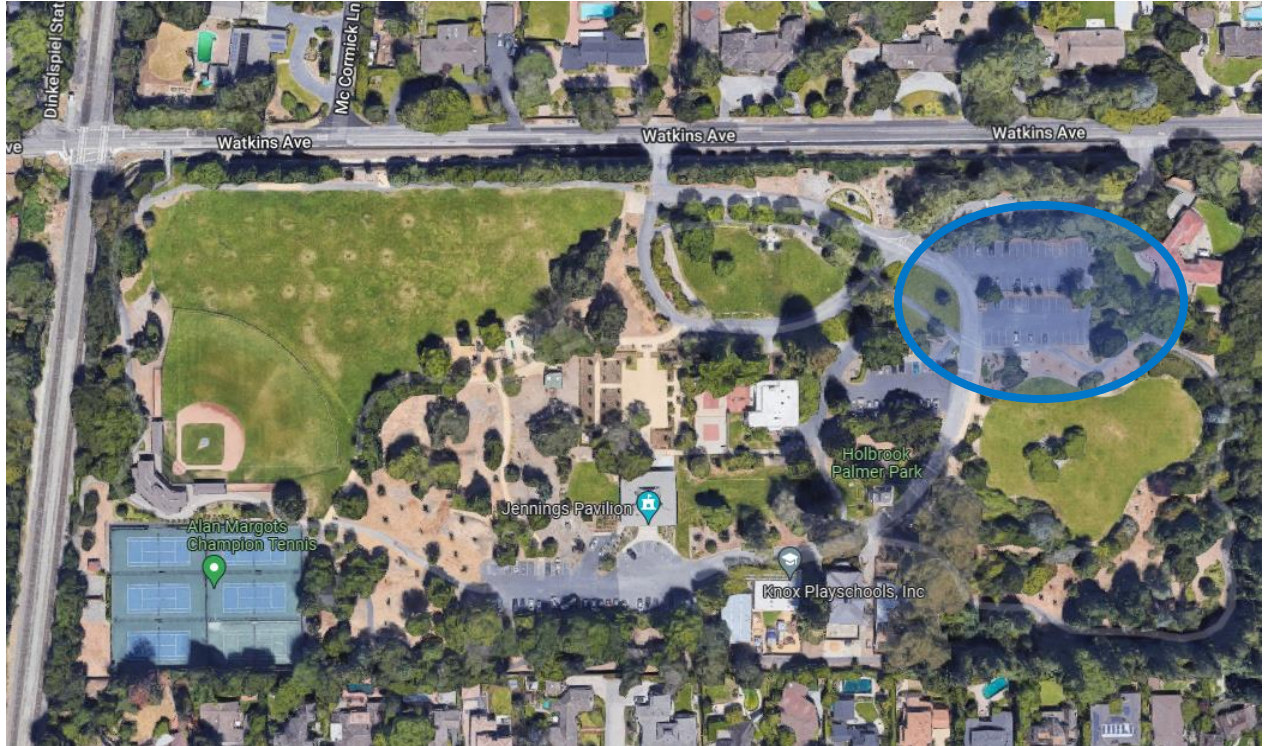
This item has not been before a Town Committee or Commission

### **ATTACHMENTS**

1. Charging Evaluation Report for Entry Lot
2. Charging Evaluation Report for Main House

# Charging Evaluation Report

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## **150 WATKINS AVE. (ENTRY LOT) SOLUTION 1 4 LEVEL 2 EV PORTS**

**PROJECT # 002498720**

4/28/2022

**PREPARED FOR** Town of Atherton

**PREPARED BY** CLEAResult

**WITH SUPPORT FROM** Peninsula Clean Energy

# Introduction

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Peninsula Clean Energy is San Mateo County's not-for-profit, community led electricity provider. Peninsula Clean Energy's mission is to reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions. As part of this mission, Peninsula Clean Energy provides a robust set of community programs to support clean transportation and buildings, as well as renewable generation and storage. This site evaluation is provided as part of the Electric Vehicle (EV) Ready program which provides incentives and technical assistance for accelerated deployment of EV charging, facilitating adoption of EVs which save money and reduce pollution. CLEAResult is Peninsula Clean Energy's partner for site technical assistance.

## Overview

The purpose of this document is to define one of the three EV charging solutions for Town of Atherton's site at 150 Watkins Ave. After selection of a preferred solution, the document can also be used to obtain bids for installation from qualified contractors.

There are three sections of the document:

1. **Project Information.** This section provides details about the existing site conditions that informed the solutions
2. **Charging Solution.** This defines the solution scope with the number of chargers by type and location
3. **Bid Request.** A template to be used by Contractors to submit bids for installation of Town of Atherton's chosen solution

## Charging Solution Summary

The 150 Watkins Ave. site is a good candidate for new EV parking spaces. After conducting a site walk and electrical capacity estimate, we have determined that the technical feasibility of installing new EV parking spaces is good and have identified the following three charging solutions:

**Solution #1: This solution is exactly what you asked for.**

- Install 4 Level 2 EV ports.

**Solution #2: This solution optimizes the port quantity, balancing available incentives and the existing electrical infrastructure to provide the best deal.**

- Install 2 Level 2 EV ports and 4 Make Ready Level 2 EV ports.

**Solution #3: This solution maximizes the quantity of ports and available incentives and prepares you best for the future.**

- **Install 1 Level 3 EV station.**

The remainder of this document will describe Solution 1 in further detail.

## Resources

You can review estimates of this solution's installation cost and incentives available to your project on the EV Program Portal at <http://pceev.clearesult.com>.

You can also find these resources to help you as you proceed to installation.

- Qualified Product List:  
[https://calevip.org/sites/default/files/docs/calevip/CALeVIP\\_Eligible\\_Equipment.pdf](https://calevip.org/sites/default/files/docs/calevip/CALeVIP_Eligible_Equipment.pdf)

Remember, your Program Advisor is also available to assist you with the review of bids, incentive application, and troubleshooting any issues that arise during installation.

## Terms

The following defined terms are used in this document:

Activation Date – The date that the chargers are fully available to provide EV charging for the intended users

Accessible – A space or equipment conforming to the requirements of the Americans with Disabilities Act (ADA)

DCFC – A direct current fast charger provides rapid charging, typically delivering a full charge in less than one hour. For CALeVIP, DCFC must be capable of 50 kW or greater.

Electricity Cost – Estimated electricity usage cost based on the site's \$/kWh rate

Electricity Demand Charges – Estimated electricity demand charge based on the site's peak demand rate

EV – An electric vehicle (EV) uses electric motors for propulsion. The two types of electric vehicles are Battery Electric Vehicles (BEV) and Plug-in Hybrid Electric Vehicles (PHEV).

EVSE – Electric Vehicle Supply Equipment, also referred to as an EV charger, safely delivers power to charge the battery of an electric vehicle

EVSE Network Fees – Estimated annual cost paid to an EVSE network provider for managing charger access, transactions, usage, data collection, and other agreed upon services

Level 1 Outlet– A level 1 charger provides power equivalent to a standard wall outlet, typically delivering a full charge overnight

Level 2 – A level 2 charger provides power equivalent to a large appliance outlet, typically delivering a full charge in 4-6 hours. For CALeVIP Level 2 must be capable of 6.2 kW or greater per connector.

Make Ready – This is the infrastructure required to be added to the site to make installation of an EVSE possible; it may include everything from a new/upgraded electric utility service, to a concrete pad on which to install the EVSE

Power Management – A device or software that allows more EVSE to operate within a site's electrical capacity by reducing the power output of the EVSE when multiple EVSE are in use. The PCE EV Ready Program typically uses one of the two following approaches to Power Management:

1. Circuit Sharing: Allowing 3 or more EV charging ports to share a single branch circuit without exceeding the rated load capacity of the circuit using control through the use of an ALMS.
2. Panel Sharing: Allowing 3 or more EV charging ports on independent branch circuits to share a single electrical panel without exceeding the rated load capacity of the panel using control through the use of an ALMS.

Qualified Product List (QPL) – This is the list of EVSE that have been vetted to confirm they meet the technical requirements of the program and are approved for recommendation and incentives, where available. You may find a copy of the QPL here:

[https://calevip.org/sites/default/files/docs/calevip/CALeVIP\\_Eligible\\_Equipment.pdf](https://calevip.org/sites/default/files/docs/calevip/CALeVIP_Eligible_Equipment.pdf)



# 1. Project Information

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## General Information

The following general information applies to all solutions.

<b>Site Contact</b>	Robert Ovadia Town of Atherton <a href="mailto:rovadia@ci.atherton.ca.us">rovadia@ci.atherton.ca.us</a> (650)752-0541
<b>Program Advisor</b>	Michael Martin CLEAResult <a href="mailto:michael.martin@clearesult.com">michael.martin@clearesult.com</a> (415) 860-1564
<b>Site Address</b>	150 Watkins Ave., Atherton, CA 94027
<b>Site Type</b>	Public Park
<b>Intended Charging Use</b>	The chargers will be used by members of the public
<b>Target Activation Date</b>	1/31/2023

## Site Evaluation

The site evaluation included the following steps:

- Discussion with Town of Atherton started on 2/2/2022 to identify objectives for the project
- Remote data collection and review, including:
  - a. Information submitted by Town of Atherton in the program application
  - b. Aerial/satellite imagery from Google Earth
  - c. Annual energy and demand data from Peninsula Clean Energy
  - d. Local distribution system electrical infrastructure published by PG&E
- A site walk by CLEAResult staff that gathered the following additional detail:
  - a. Electrical panel location, capacity and utilization
  - b. Candidate charging locations and surface conditions
  - c. Distance measurements
- “As Built” architectural drawings were available
- An available capacity estimate was completed by CLEAResult Engineer, Andy Lentz

The Solutions recommended have also been designed to address the following utility needs:

- The available capacity of the utility service is calculated to be sufficient
  - a. No engagement with the utility is required.

## Site Overview

150 Watkins Ave. is a public park established in 1958. It is owned by Town of Atherton and its primary interest for installing electric vehicle charging is to meet the current and future demand for EV charging stations.

## Parking Layout

Holbrook Palmer Park is bordered by Watkins Ave to the West, residential buildings to the North and East, and train tracks to the South. The main parking entrance is located on Watkins Ave. Parking areas are accessible to members of the public and consists of the following numbers of parking categories and spaces.

Type	Non-EVSE	L1	L2	DCFC
Standard	54	0	0	0
Van ADA	1	0	0	0
Standard ADA	1	0	0	0
Ambulatory	0	0	0	0

## EV Charging Projection

Electric vehicles currently make up approximately 4% of private vehicles in San Mateo County. Projections suggest electric vehicles will exceed 10% by 2025 and 20% by 2030.

The recommended Solutions are designed to prepare 150 Watkins Ave. for its likeliest daily charging needs through 2025 and beyond.

## Electrical Infrastructure

The following is a simple description of the site electrical infrastructure most relevant to the EV charging project.

### Utility Service

150 Watkins Ave.'s main service is 1 phase/3-wire 120/240V. The power enters from a dedicated transformer (T-2973) located underground and has an unknown kVA capacity. We do not anticipate service capacity being an issue because the building side infrastructure already has sufficient capacity, however we encourage the selected contractor to confirm transformer service capacity details from PG&E because a re-establishment of service may be required.

### Main Switchboard

Main Switchboard is located in an exterior pad-mounted electrical cabinet on the northwest side of the park near the park exit. The 1-Phase, 3-Wire 120/240V panel has a 600A (amps) rating

and was installed in 2019. The manufacturer is Cutler-Hammer. The Main Switchboard previously served a temporary office building which has since been removed so there is no load on this switchboard it has an estimated available capacity of 600A.

Figure 1: Main Switchboard



### New EVSE Panel

EVSE circuits can be placed in a new dedicated EVSE Panel to be located Northwest side of park. The new EVSE Panel should receive power from the Main Switchboard, which will require a 600A breaker.

## 2. Charging Solution

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### Solution #1

Solution #1 is designed to meet Town of Atherton's initial request for 4 Level 2 EV ports.

### Chargers

The following quantities of charging are included.

Type	Quantity	Installation Specifications
<b>Level 2 EVSE</b>	4 ports	<ul style="list-style-type: none"><li>• 2 qty dual port Level 2 pedestal mounted 208-240V 32A EVSE</li><li>• <u>Preferred Pricing</u>: The project cost estimate utilizes preferred pricing available to Peninsula Clean Energy customers for the Enel X JuicePedestal Pro 32 dual port pedestal mount EVSE</li><li>• Requires credit card reader connection if public parking access is allowed</li></ul>

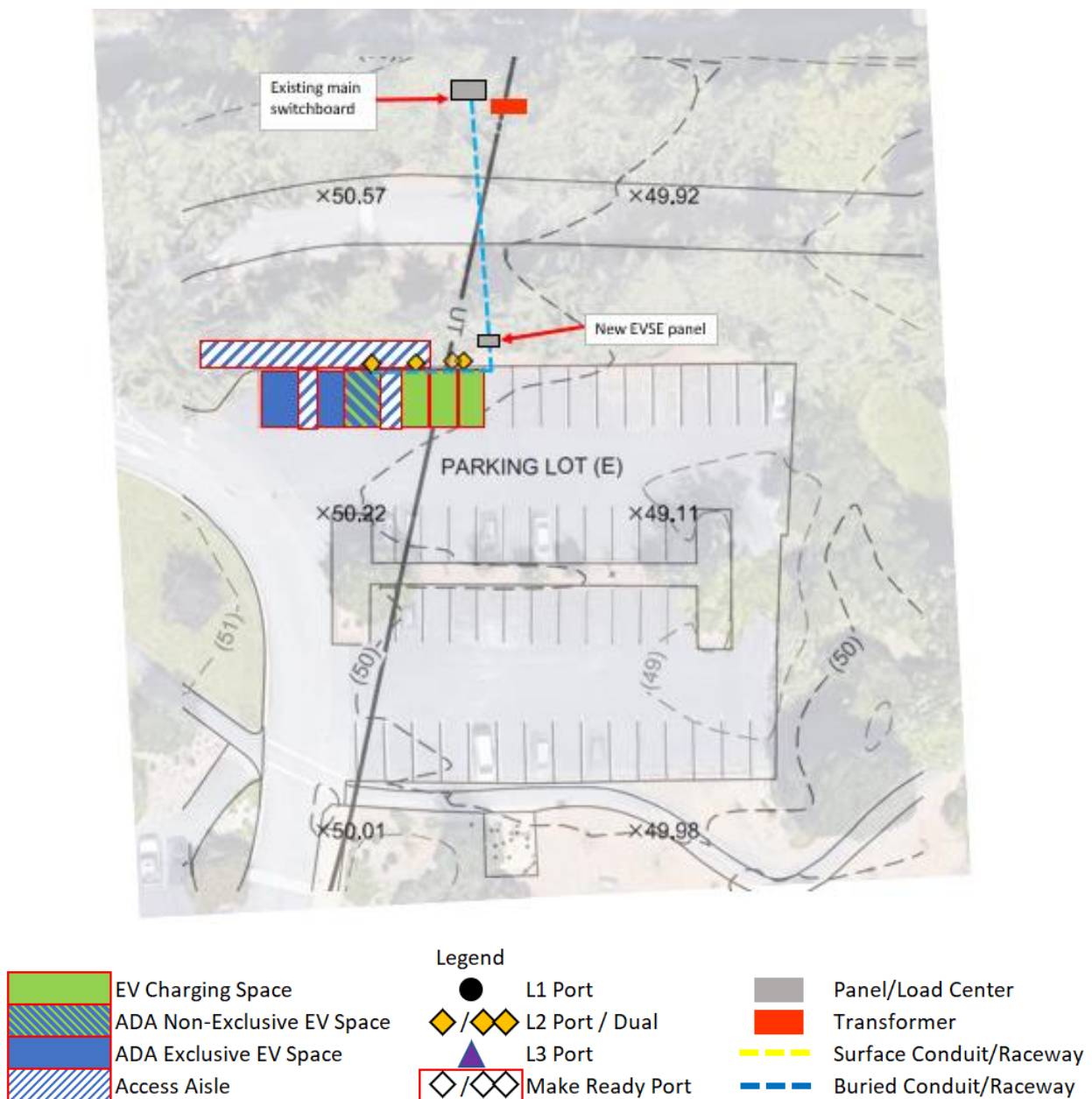
### Installation Requirements

1. Requires installation of new 200A Subpanel EVSE
  - a. Requires new 200A circuit breaker in Main Switchboard
2. Requires 4 qty Level 2 ports that are connected to 4 qty 40A circuits in new EVSE Subpanel as follows:
  - a. Install 4 qty 40A circuits in new EVSE Subpanel
    - i. Pull power via new conduit routed underground for 4 qty Level 2 ports
  - b. Total of 5 existing parking spaces converted to 4 EV parking spaces
    - i. 1<sup>st</sup> new EV space must be a van width combination ADA/EV space (placard not required to charge)

### Layout

The drawing below includes the new proposed EV parking space locations. Based on the recommended quantity of ports in this solution, 1 new ADA space will be required based on California Building Code 2016 Chapter 11B-228.3.2.1. The first EV space must be a van-width (12-ft) combination ADA EV space (placard not required for charging) with an access aisle (5-ft).

Figure 2: Proposed EVSE &amp; ADA EVSE Layout



### Infrastructure Requirements

The following site electrical infrastructure will be necessary to enable this solution. Some “existing” equipment is identified in the table. If a connection to the existing equipment is required, the existing equipment type has been identified. The capacity of that existing equipment is expected to be adequate to support this solution.

	<b>System Name</b>	Level 2 EVSE
<b>EVSE Circuits</b>	<i>New/Existing</i>	New
	<i>Circuit Type</i>	240V, 40A
	<i>Circuit Quantity</i>	4
	<i>Placement</i>	Conduit routed underground
<b>EVSE Subpanel</b>	<i>New/Existing</i>	New
	<i>Panel Type</i>	1P, 3W, 120/240V, 200A
<b>Main Switchboard</b>	<i>New/Existing</i>	Existing
	<i>Panel Type</i>	1P, 3W, 120/240V, 600A
<b>Utility Service</b>	<i>New/Existing</i>	Existing

### Additional Requirements

In addition to electrical upgrades, the following additional requirements are necessary for safety and accessibility.

Category	Description of Requirements
<b>Structural</b>	<p>The following list provides some of the requirements that will be needed at the time of the installation:</p> <ol style="list-style-type: none"> <li>1. 2 qty 2'x2' concrete pads must be poured to support the pedestal mounted charging stations.</li> </ol>
<b>Painting and Signage</b>	<p>The following list provides some of the requirements that will be needed at the time of the installation:</p> <ol style="list-style-type: none"> <li>1. 3 parking spaces will require EV Charging Only signage</li> <li>2. 1 parking space will require EV charging van width Accessible ADA signage</li> <li>3. Due to the additional ADA space, the 4 new charging spaces will replace a total of 5 existing parking spaces</li> <li>4. 5 spaces will need re-striping to reflect their new parking use types</li> </ol>
<b>Landscaping</b>	Landscaping remediation is not anticipated for this project
<b>Other</b>	A contractor or EVSE vendor is recommended to determine if a network signal booster is needed to ensure EVSE connectivity.



## Operating Model

There are many ways an EVSE site host may structure access and fees to shape the operating cost for their site. Many site hosts choose to provide EVSE as a site amenity, charging little or nothing and recouping their costs from other business activities. Others set fees to break even or even produce net operating income from the chargers.

Based on information Town of Atherton provided about the intended use of the chargers, the program staff has estimated likely annual usage and costs. The following tables present Town of Atherton's estimated annual operating costs followed by a potential revenue break-even operating model.

## Assumptions

Electric vehicles currently make up approximately 4% of private vehicles in San Mateo County. Projections suggest electric vehicles will exceed 10% by 2025 and 20% by 2030. The table below calculates the likely usage and operational costs based on this rapid growth over the next 5 years.

Forecast Operations				
	Off Peak	Partial Peak	Peak	Total
Annual Charge Port Utilization (kWh)				
Level 2 EVSE	11,213	32,587	21,900	65,700
Annual Operating Costs				
Electricity Rate	B-EV-1			
L2 Electricity Cost	\$532	\$2,331	\$5,365	\$8,228
Electricity Demand Charges	\$0			
L2 EVSE Network Fees <sup>1</sup>	\$960			
Total Annual Operating Cost	\$9,188			
Other Annual Costs				
L2 Other Maintenance Costs	\$479			
Potential Revenue Scenario				
Revenue Model				
L2 User Fees <sup>2</sup>	Average per kWh	\$0.14		
L2 Estimated Revenues				\$9,188
Annual Net Operating Revenue				\$0

<sup>1</sup>The first 3 years of Level 2 EVSE Network Fees are bundled into the project cost estimate, and therefore these fees would not be added to your annual operating costs until the 4<sup>th</sup> year of operation.

<sup>2</sup>The L2 User Fees reflects the hypothetical cost per kWh usage charge necessary to break even against the estimated annual operating costs shown in the table above. Typically, public EV charging costs may be \$1 connection fee plus \$0.25 per kWh. You may also wish to add an additional charge after a certain duration of time to encourage those who have completed their charging to move their vehicle and allow others to charge. These price settings are configurable in the EVSE network software, however there are certain regulations governing EVSE pricing for public charging that must be followed. Your Program Advisor is available to help set pricing, should you choose to use that capability.



## 3. Bid Request

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### Instructions to Contractor

1. Carefully review the preferred solution description and Site Assessment above
2. Contact the Town of Atherton and Program contacts identified above if additional information is needed
3. Complete the bid response template below
4. Proposed EVSE pricing shall not be based on capturing California's Low Carbon Fuel Standard (LCFS) credits as they shall be assigned to Peninsula Clean Energy
5. Submit your bid response by email to the Town of Atherton and Program contacts **before 5pm on the 20<sup>th</sup> business day** after receipt of the bid request email
6. Please ensure the power management specification in the above Installation Requirements section is in your proposed scope

### Scope

The scope of your response should encompass all items marked with an "Y" in the following table:

Include?	Scope Item
Y	Design and permitting including additional site visits
Y	All infrastructure and additional requirements
Y	If a new or upgraded utility service is required, contractor shall request and facilitate upgrades but will not be responsible for any utility fees
Y	Purchase, installation and commissioning of the EVSE, especially for prescribed power management approach*
N	Load study to specify additional project infrastructure support

*\*For avoidance of doubt, this does not include software licenses that may be required for ongoing EVSE operation*

## Response Template

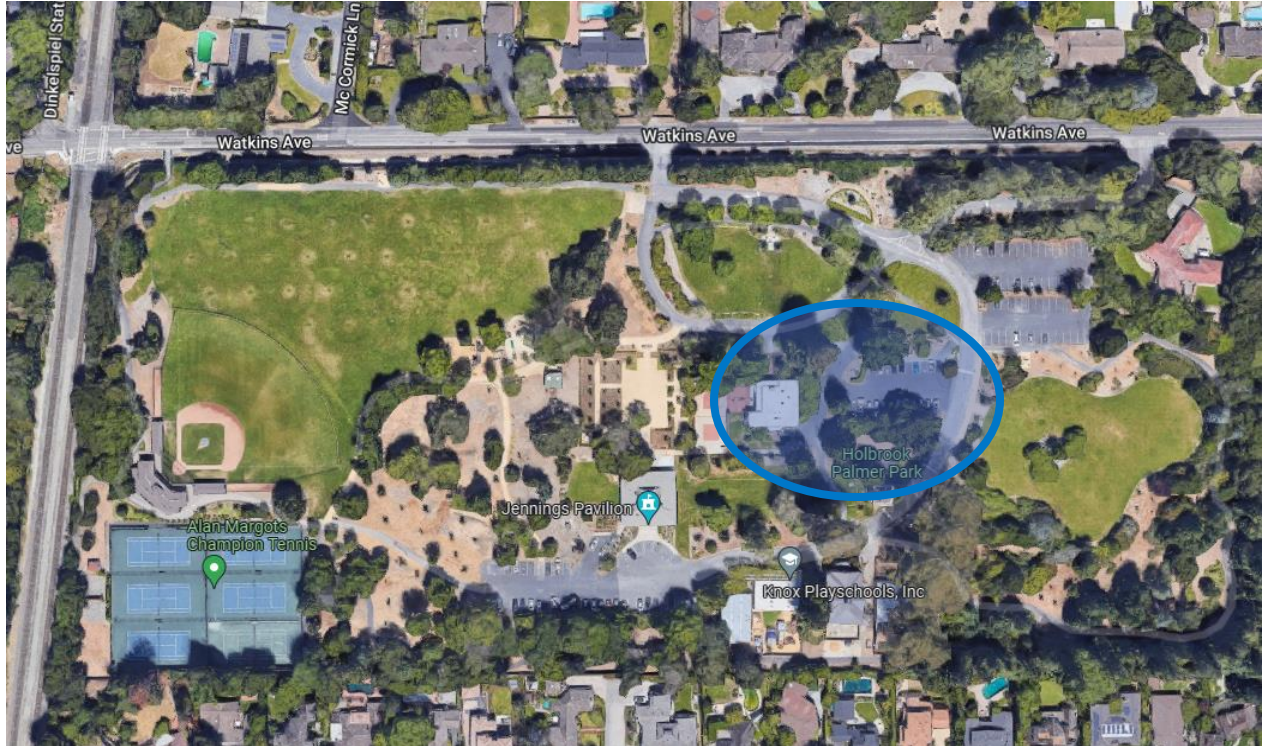
Please populate this exact template and include in your bid response. You may also include additional information to elaborate on your qualifications or proposed solution, but this chart is **REQUIRED** to be included.

Task	Materials			Labor		
	Units	Unit Rate	Price	Hours	Hourly Rate	Price
Level 1 Outlets						
Level 2 EVSE						
EVSE Circuits						
Subpanel						
Transformer						
Main Panel						
Design and Permitting						
Utility Service						
Additional Tasks*						
Subtotal						
Total Bid Price						
Please note any assumptions here that you feel are important:						

\*Additional Tasks are proposed tasks that you deem as required for project success but are not found in the chart's standard task list above.

# Charging Evaluation Report

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## 150 WATKINS AVE. (MAIN HOUSE) SOLUTION 1 2 LEVEL 2 EV PORTS

**PROJECT # 002518025**

4/28/2022

**PREPARED FOR** Town of Atherton

**PREPARED BY** CLEAResult

**WITH SUPPORT FROM** Peninsula Clean Energy

# Introduction

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1. **Project Information.** This section provides details about the existing site conditions that informed the solutions
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**Solution #1: This solution is exactly what you asked for.**

- Install 2 Level 2 EV ports.

**Solution #2: This solution optimizes the port quantity, balancing available incentives and the existing electrical infrastructure to provide the best deal.**

- Install 2 Level 2 EV ports and 2 Make Ready Level 2 EV ports.

The remainder of this document will describe Solution 1 in further detail.

## Resources

You can review estimates of this solution's installation cost and incentives available to your project on the EV Program Portal at <http://pceev.clearesult.com>.

You can also find these resources to help you as you proceed to installation.

- Qualified Product List:  
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Remember, your Program Advisor is also available to assist you with the review of bids, incentive application, and troubleshooting any issues that arise during installation.

## Terms

The following defined terms are used in this document:

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DCFC – A direct current fast charger provides rapid charging, typically delivering a full charge in less than one hour. For CALeVIP, DCFC must be capable of 50 kW or greater.

Electricity Cost – Estimated electricity usage cost based on the site's \$/kWh rate

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EVSE Network Fees – Estimated annual cost paid to an EVSE network provider for managing charger access, transactions, usage, data collection, and other agreed upon services

Level 1 Outlet– A level 1 charger provides power equivalent to a standard wall outlet, typically delivering a full charge overnight

Level 2 – A level 2 charger provides power equivalent to a large appliance outlet, typically delivering a full charge in 4-6 hours. For CALeVIP Level 2 must be capable of 6.2 kW or greater per connector.

**Make Ready** – This is the infrastructure required to be added to the site to make installation of an EVSE possible; it may include everything from a new/upgraded electric utility service, to a concrete pad on which to install the EVSE

**Power Management** – A device or software that allows more EVSE to operate within a site's electrical capacity by reducing the power output of the EVSE when multiple EVSE are in use. The PCE EV Ready Program typically uses one of the two following approaches to Power Management:

1. **Circuit Sharing:** Allowing 3 or more EV charging ports to share a single branch circuit without exceeding the rated load capacity of the circuit using control through the use of an ALMS.
2. **Panel Sharing:** Allowing 3 or more EV charging ports on independent branch circuits to share a single electrical panel without exceeding the rated load capacity of the panel using control through the use of an ALMS.

**Qualified Product List (QPL)** – This is the list of EVSE that have been vetted to confirm they meet the technical requirements of the program and are approved for recommendation and incentives, where available. You may find a copy of the QPL here:

[https://calevip.org/sites/default/files/docs/calevip/CALeVIP\\_Eligible\\_Equipment.pdf](https://calevip.org/sites/default/files/docs/calevip/CALeVIP_Eligible_Equipment.pdf)

# 1. Project Information

## General Information

The following general information applies to all solutions.

<b>Site Contact</b>	Robert Ovadia Town of Atherton <a href="mailto:rovadia@ci.atherton.ca.us">rovadia@ci.atherton.ca.us</a> (650)752-0541
<b>Program Advisor</b>	Michael Martin CLEAResult <a href="mailto:michael.martin@clearesult.com">michael.martin@clearesult.com</a> (415) 860-1564
<b>Site Address</b>	150 Watkins Ave., Atherton, CA 94027
<b>Site Type</b>	Public Park
<b>Intended Charging Use</b>	The chargers will be used by members of the public
<b>Target Activation Date</b>	1/31/2023

## Site Evaluation

The site evaluation included the following steps:

- Discussion with Town of Atherton started on 2/2/2022 to identify objectives for the project
- Remote data collection and review, including:
  - a. Information submitted by Town of Atherton in the program application
  - b. Aerial/satellite imagery from Google Earth
  - c. Annual energy and demand data from Peninsula Clean Energy
  - d. Local distribution system electrical infrastructure published by PG&E
- A site walk by CLEAResult staff that gathered the following additional detail:
  - a. Electrical panel location, capacity and utilization
  - b. Candidate charging locations and surface conditions
  - c. Distance measurements
- “As Built” architectural drawings were available
- An available capacity estimate was completed by CLEAResult Engineer, Andy Lentz

The Solutions recommended have also been designed to address the following utility needs:

- The available capacity of the utility service is calculated to be sufficient
  - a. No engagement with the utility is required.



## Site Overview

150 Watkins Ave. is a public park established in 1958. It is owned by Town of Atherton and its primary interest for installing electric vehicle charging is to meet the current and future demand for EV charging stations.

## Parking Layout

Holbrook Palmer Park is bordered by Watkins Ave to the West, residential buildings to the North and East, and train tracks to the South. The main parking entrance is located on Watkins Ave. Parking areas are accessible to members of the public and consists of the following numbers of parking categories and spaces.

Type	Non-EVSE	L1	L2	DCFC
Standard	21	0	0	0
Van ADA	1	0	0	0
Standard ADA	0	0	0	0
Ambulatory	0	0	0	0

## EV Charging Projection

Electric vehicles currently make up approximately 4% of private vehicles in San Mateo County. Projections suggest electric vehicles will exceed 10% by 2025 and 20% by 2030.

The recommended Solutions are designed to prepare 150 Watkins Ave. for its likeliest daily charging needs through 2025 and beyond.

## Electrical Infrastructure

The following is a simple description of the site electrical infrastructure most relevant to the EV charging project.

## Utility Service

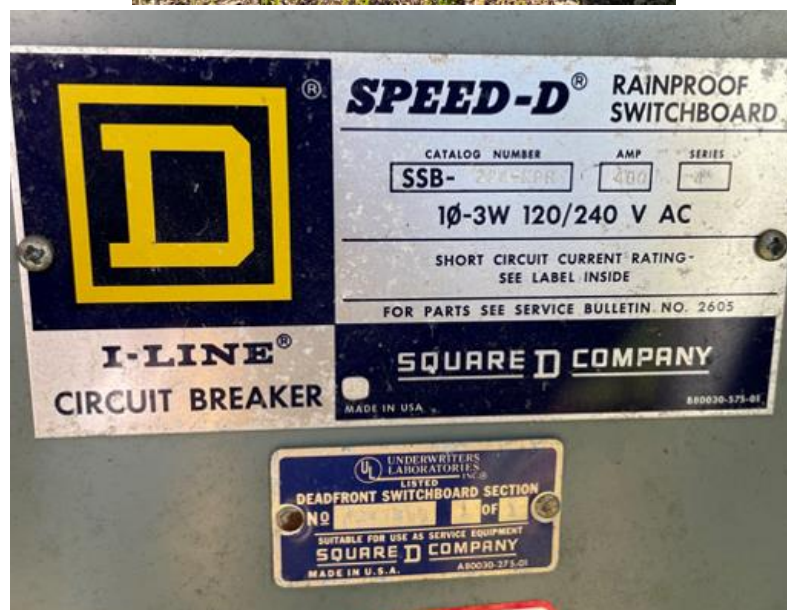
150 Watkins Ave.'s main service is 1 phase/3-wire 120/240V. The power enters from a dedicated transformer located underground across from the historic water tower and has an unknown kVA capacity. We do not anticipate service capacity being an issue because the building side infrastructure already has sufficient capacity, however we encourage the selected contractor to confirm transformer service capacity details from PG&E.



### Main Switchboard (Water Tower)

The Main Switchboard (Water Tower) is located in an exterior electrical cabinet adjacent to the historical Water Tower. The 1 phase/3-wire 120/240V panel has a 400A rating and was installed in 1982. The manufacturer is Square D and it has an estimated available capacity of 343A.

*Figure 1: Main Switchboard (Water Tower)*



## Exterior Panel

EVSE circuits can be placed in the Exterior Panel which is mounted on the right side of the Main Switchboard cabinet. The 1 phase/3-wire 120/240V panel has a 200A rating and was installed in an unknown date. The manufacturer is Square D. The Exterior Panel has an estimated available capacity of 143A. There is also physical space for new EVSE dedicated circuits. The contractor shall confirm the available capacity on Exterior Panel.

*Figure 2: Exterior Panel*



## 2. Charging Solution

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### Solution #1

Solution #1 is designed to meet Town of Atherton's initial request for 2 Level 2 EV ports. We highly recommend, however, that Town of Atherton choose one of the additional solutions that meets the site's future EV charging needs while simultaneously providing superior project cost performance. Leveling for Van ADA, access aisle, and paving new walkway will be required.

### Chargers

The following quantities of charging are included.

Type	Quantity	Installation Specifications
<b>Level 2 EVSE</b>	2 ports	<ul style="list-style-type: none"><li>1 qty dual port Level 2 pedestal mounted 208-240V 32A EVSE</li><li><u>Preferred Pricing</u>: The project cost estimate utilizes preferred pricing available to Peninsula Clean Energy customers for the Enel X JuicePedestal Pro 32 pedestal mount EVSE</li><li>Requires credit card reader connection if public parking access is allowed</li></ul>

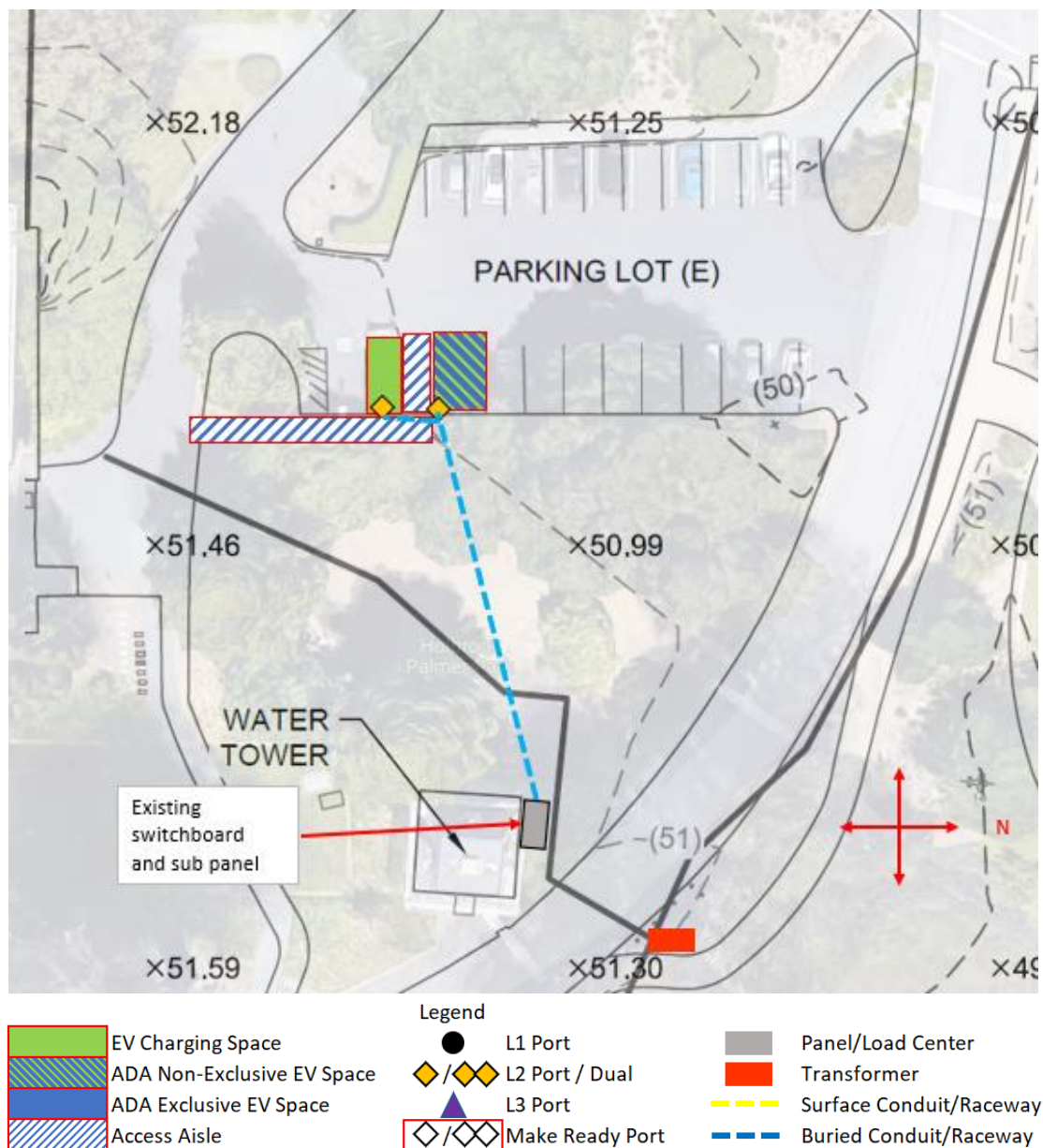
### Installation Requirements

- Requires use of existing 200A Exterior Panel
- Requires 2 qty Level 2 ports that are connected to 2 qty 40A circuits in Exterior Panel as follows:
  - Install 2 qty 40A circuits in Exterior Panel
    - Pull power via new conduit routed underground for 2 qty Level 2 ports
  - Total of 3 existing parking spaces converted to 2 EV parking spaces
    - 1<sup>st</sup> new EV space must be a van width combination ADA/EV space (placard not required to charge)

### Layout

The drawing below includes the new proposed EV parking space locations. Based on the recommended quantity of ports in this solution, 1 new ADA space will be required based on California Building Code 2016 Chapter 11B-228.3.2.1. The first EV space must be a van-width (12-ft) combination ADA EV space (placard not required for charging) with an access aisle (5-ft).

Figure 3: Proposed EVSE &amp; ADA EVSE Layout



### Infrastructure Requirements

The following site electrical infrastructure will be necessary to enable this solution. Some “existing” equipment is identified in the table. If a connection to the existing equipment is required, the existing equipment type has been identified. The capacity of that existing equipment is expected to be adequate to support this solution.

	<b>System Name</b>	Level 2 EVSE
<b>EVSE Circuits</b>	<i>New/Existing</i>	New
	<i>Circuit Type</i>	240V, 40A
	<i>Circuit Quantity</i>	2
	<i>Placement</i>	Conduit routed underground
<b>Exterior Panel</b>	<i>New/Existing</i>	Existing
	<i>Panel Type</i>	1P, 3W, 120/240V, 200A
<b>Switchboard (Water Tower)</b>	<i>New/Existing</i>	Existing
	<i>Panel Type</i>	1P, 3W, 120/240V, 400A
<b>Utility Service</b>	<i>New/Existing</i>	Existing

### Additional Requirements

In addition to electrical upgrades, the following additional requirements are necessary for safety and accessibility.

<b>Category</b>	<b>Description of Requirements</b>
<b>Structural</b>	<p>The following list provides some of the requirements that will be needed at the time of the installation:</p> <ol style="list-style-type: none"> <li>1. 1 qty 2'x2' concrete pad must be poured to support the pedestal mounted charging station.</li> </ol>
<b>Painting and Signage</b>	<p>The following list provides some of the requirements that will be needed at the time of the installation:</p> <ol style="list-style-type: none"> <li>1. 1 parking space will require EV Charging Only signage</li> <li>2. 1 parking space will require EV charging van width Accessible ADA signage</li> <li>3. Due to the additional ADA space, the 2 new charging spaces will replace a total of 3 existing parking spaces</li> <li>4. 3 spaces will need re-striping to reflect their new parking use types</li> </ol>
<b>Landscaping</b>	Landscaping remediation is not anticipated for this project
<b>Other</b>	A contractor or EVSE vendor is recommended to determine if a network signal booster is needed to ensure EVSE connectivity.



## Operating Model

There are many ways an EVSE site host may structure access and fees to shape the operating cost for their site. Many site hosts choose to provide EVSE as a site amenity, charging little or nothing and recouping their costs from other business activities. Others set fees to break even or even produce net operating income from the chargers.

Based on information Town of Atherton provided about the intended use of the chargers, the program staff has estimated likely annual usage and costs. The following tables present Town of Atherton's estimated annual operating costs followed by a potential revenue break-even operating model.

## Assumptions

Electric vehicles currently make up approximately 4% of private vehicles in San Mateo County. Projections suggest electric vehicles will exceed 10% by 2025 and 20% by 2030. The table below calculates the likely usage and operational costs based on this rapid growth over the next 5 years.

Forecast Operations				
	Off Peak	Partial Peak	Peak	Total
Annual Charge Port Utilization (kWh)				
Level 2 EVSE	6,947	14,953	3,650	25,550
Annual Operating Costs				
Electricity Rate	B-1-B			
L2 Electricity Cost	\$651	\$1,471	\$470	\$2,591
Electricity Demand Charges	\$0			
L2 EVSE Network Fees <sup>1</sup>	\$480			
Total Annual Operating Cost	\$3,071			
Other Annual Costs				
L2 Other Maintenance Costs	\$319			
Potential Revenue Scenario				
Revenue Model				
L2 User Fees <sup>2</sup>	Average per kWh	\$0.12		
L2 Estimated Revenues				\$3,071
Annual Net Operating Revenue				\$0

<sup>1</sup>The first 3 years of Level 2 EVSE Network Fees are bundled into the project cost estimate, and therefore these fees would not be added to your annual operating costs until the 4<sup>th</sup> year of operation.

<sup>2</sup>The L2 User Fees reflects the hypothetical cost per kWh usage charge necessary to break even against the estimated annual operating costs shown in the table above. Typically, public EV charging costs may be \$1 connection fee plus \$0.25 per kWh. You may also wish to add an additional charge after a certain duration of time to encourage those who have completed their charging to move their vehicle and allow others to charge. These price settings are configurable in the EVSE network software, however there are certain regulations governing EVSE pricing for public charging that must be followed. Your Program Advisor is available to help set pricing, should you choose to use that capability.

### 3. Bid Request

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#### Instructions to Contractor

1. Carefully review the preferred solution description and Site Assessment above
2. Contact the Town of Atherton and Program contacts identified above if additional information is needed
3. Complete the bid response template below
4. Proposed EVSE pricing shall not be based on capturing California's Low Carbon Fuel Standard (LCFS) credits as they shall be assigned to Peninsula Clean Energy
5. Submit your bid response by email to the Town of Atherton and Program contacts **before 5pm on the 20<sup>th</sup> business day** after receipt of the bid request email
6. Please ensure the power management specification in the above Installation Requirements section is in your proposed scope

#### Scope

The scope of your response should encompass all items marked with an "Y" in the following table:

Include?	Scope Item
Y	Design and permitting including additional site visits
Y	All infrastructure and additional requirements
Y	If a new or upgraded utility service is required, contractor shall request and facilitate upgrades but will not be responsible for any utility fees
Y	Purchase, installation and commissioning of the EVSE, especially for prescribed power management approach*
N	Load study to specify additional project infrastructure support

*\*For avoidance of doubt, this does not include software licenses that may be required for ongoing EVSE operation*



## Response Template

Please populate this exact template and include in your bid response. You may also include additional information to elaborate on your qualifications or proposed solution, but this chart is **REQUIRED** to be included.

Task	Materials			Labor		
	Units	Unit Rate	Price	Hours	Hourly Rate	Price
Level 1 Outlets						
Level 2 EVSE						
EVSE Circuits						
Subpanel						
Transformer						
Main Panel						
Design and Permitting						
Utility Service						
Additional Tasks*						
Subtotal						
Total Bid Price						
Please note any assumptions here that you feel are important:						

\*Additional Tasks are proposed tasks that you deem as required for project success but are not found in the chart's standard task list above.

**From:** [Kenneth Frederick](#)  
**To:** [Council](#)  
**Subject:** A Public Comment on proposed spending \$300K for EV chargers in Holbrook Palmer Park  
**Date:** Tuesday, February 20, 2024 8:44:16 PM

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**[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]**

Town Council:

With the extreme weather conditions, I may not be able to attend tomorrow's Council meeting in person and therefore I wanted to submit this public comment in advance. In short, I request that you table any action on the proposed \$300,000 funding for EV Charging infrastructure in Holbrook Palmer Park until after the Town completes the planned resident survey later this year. There are several reasons for this request. Although the residents applaud the overall environmental goal, and the Council is, due to its close relationship with Peninsula Clean Energy, more knowledgeable about the value of EV's than most residents, the expenditure is better considered after the Council fully appreciates the views, needs and goals of our residents. The Council will be better able to prioritize & select new project funding levels after they have a fuller knowledge of the breadth & range of options for improvements in Holbrook Palmer Park.

In addition, many residents are confused as to what "Problem" the Council is attempting to solve by spending \$300,000 on additional EV chargers & removing traditional parking spots in the Park. Since all Atherton EV owners are less than 3 miles to the Park, they have a charger at home & have no need for chargers in the Park. The Town employees are in the Town Center area where we already have enough EV chargers for their use. Thus, we must assume that the Council plans to spend the \$300,000 as a service to those from other areas visiting the Park. Although a noble gesture there are probably other projects that Atherton residents would rather have \$300,000 of their tax dollars spent on.

Again, I urge you to "table" the proposal and reconsider it with the other options that will be developed in the upcoming Town survey. It would be the prudent fiscal option.

APPROVAL OF FUNDING FOR THE INSTALLATION OF ELECTRIC VEHICLE  
(EV) CHARGING INFRASTRUCTURE AT HOLBROOKPALMER  
PARK

THROUGH PENINSULA CLEAN ENERGY'S EV READY PROGRAM

Report: RACHAEL LONDER, MANAGEMENT ANALYST II

Recommendation: It is recommended that the Council discuss and decide if the Town should allocate \$300,000 to install EV Charging Infrastructure at Holbrook Palmer Park

Park through

Peninsula Clean Energy's EV Ready Program

Description: This item is to request \$300,000 to install electric vehicle (EV) chargers at