



CITY OF  
**PALO ALTO**  
UTILITIES  
1007 Elwell Court, Palo Alto, CA 94303  
650-566-4500, 650-566-4501

[www.paloalto.gov/Departments/Utilities](http://www.paloalto.gov/Departments/Utilities)

## UTILITY SERVICE APPLICATION

### PERMANENT COMMERCIAL & MULTI-FAMILY (4 or more Units)

### ELECTRIC, WATER, GAS, AND WASTEWATER FACILITIES INSTALLATION

**TO AVOID DELAYS, PLEASE MAKE SURE THIS APPLICATION IS FILLED OUT COMPLETELY AND AS ACCURATE AS POSSIBLE.**  
A separate application and load information is required for each meter requested.  
Upon completion of review and approval a copy of this form will be sent back to applicants requesting Electric Service.

Project Address (LEGAL ADDRESS INCLUDING SUITE # IF APPLICABLE):	Suite/Unit #:	Building Department Permit Application Number:	Utilities Department Application Number:
Name of Applicant:		Owner	Tenant
Company Name:		Consultant	Contractor
Address:		Owner's Agent	
Phone:		E-mail:	
City / State / Zip:			

#### UTILITY SERVICE CONNECTION AND INSTALLATION CHARGES BILLING INFORMATION

The utility connections charges invoice will either be attached to the building permit plans or mailed to the responsible billing party on this service application. Contact Utilities Engineering for a copy of the invoice. It is the customer's responsibility to be aware of this billing and to make prompt payment. **FULL PAYMENT IS REQUIRED PRIOR TO THE SCHEDULING OF ANY WORK OR INSPECTIONS BY THE CITY OF PALO ALTO UTILITIES.**

Name on the invoice (1 person only):	Phone:	E-mail:
Address:		City / State / Zip:

Services Requested and Desired Date of Installation:	Electric Service _____ Electric Shutdown _____ (Without Panel replacement)	Water _____	Gas _____	Wastewater _____
Project Status:	Planning/Design	Bidding/Estimating	Demolition	Construction

Depending on Utility Service Type Requested, Please Complete Appropriate Portions of this Application

Project Type (check all boxes that apply)	New Service	Addition/Remodel	Tenant Improvement	Restaurant
	Service Upgrade	Service Relocation	Fire Protection/Sprinkler	Electric Planned Shutdown
	PV System (Photovoltaic)	EVSE (Electric Vehicle)	ESS (Energy Storage)	Other, _____
Brief Description of Work				Total building area upon completion: _____ sq-ft

## Gas, Electric Service Load Information (INDICATE PEAK OR MAXIMUM RATES OF USE OR FLOW)

GAS (PER METER) & ELECTRIC LOADS (Select Units)				ELECTRIC LOADS (Select Units)			
DESCRIPTION	EXISTING	NEW	UNITS	DESCRIPTION	EXISTING	NEW	UNITS
SPACE HEATING				LIGHTING			
HVAC (1 Phase electric)				RECEPTACLE, OTHER			
HVAC (3 Phase electric)				PROCESS POWER			
WATER HEATER/TANKLESS				ELEVATORS			
COOKING EQUIPMENT				LARGEST MOTOR			
CLOTHES DRYER				OTHER MOTORS (1 Phase)			
FIRE LOG/FIREPLACE				OTHER MOTORS (3 Phase)			
OUTDOOR HEATING				PHOTOVOLTAIC SYSTEM (PV)			kW (CEC-AC)
POOL/SPA HEATER				ENERGY STORAGE SYSTEM (ESS)			kW (AC)
POOL/SPA PUMP				ELECTRIC VEHICLE CHARGING SYSTEM (Load Per Charging Station)			kW per charger
OTHERS _____				NUMBER OF CHARGING STATIONS:	NUMBER OF EV PARKING SPACES:		

BTUH: BTU (British Thermal Unit) PER HOUR      kW: kilowatts (=1000 Watts)      kVA: kilovoltamps (= 1000 Voltamps)      hp: Horsepower

Attach adequate Electric Load information verifying National Electric Code Article 220 (Branch Circuit and Feeder Calculations) requirements are met.

### ELECTRIC SERVICE (Include Single Line Diagram, Load Calcs, and Main Panel Cut Sheets of Proposed installation for 400 amps and up)

SERVICE INFORMATION	EXISTING	REQUESTED
Service Voltage & Main Switch Size (Amps)		
Service Type: (Select one)	OVERHEAD      UNDERGROUND	OVERHEAD      UNDERGROUND
Number of Meters and Location (NOTE: Only one service per parcel)	No. Meters: _____ Location: _____	No. Meters: _____ Location: _____
Applicant's Name:	Applicant's Signature:	Application Date:

SEE NEXT PAGE FOR WATER AND WASTEWATER LOADS, ELECTRIC SERVICE REQUIREMENTS, AND UTILITY PLAN SUBMITTAL CHECKLIST → → → →

# Water Service & Wastewater Load Information (INDICATE PEAK OR MAXIMUM RATES OF USE OR FLOW)

**WATER LOAD DEMANDS:** REFER TO THE LATEST EDITION OF THE CITY ADOPTED UNIFORM PLUMBING CODE, WATER SUPPLY & DISTRIBUTION SECTION, FOR CALCULATING FIXTURE UNITS AND GALLONS PER MINUTE.

WATER (PER METER) LOADS:			UNITS	F.U.: Fixture Unit	G.P.M.: Gallons per Minute			
DESCRIPTION	EXISTING	NEW	TOTAL	DESCRIPTION	EXISTING	NEW	TOTAL	
DOMESTIC USE	F.U.	F.U.	F.U.	FIRE SPRINKLER SYSTEM	G.P.M.	G.P.M.	G.P.M.	
IRRIGATION USE, MAX FLOW PER VALVE	G.P.M.	G.P.M.	G.P.M.	FIRE PROTECTION SYSTEM	G.P.M.	G.P.M.	G.P.M.	

WASTEWATER LOADS:			UNITS	F.U.: Fixture Unit	D.U.: Dwelling Units	S.F.: Square-Foot	G.P.D.: Gallons per Day		
USE CATEGORY	EXISTING FIXTURE UNITS	PROPOSED FIXTURE UNITS	EXISTING UNITS	PROPOSED UNITS	TOTAL UNITS (EXISTING + NEW)	UNIT FLOW RATE (G.P.D./UNIT) *	FLOW RATE UNIT x FLOW RATE		
MULTI-FAMILY	F.U.	F.U.	D.U.	D.U.	D.U.	160	G.P.D.		
COMMERCIAL	F.U.	F.U.	S.F.	S.F.	S.F.	0.15	G.P.D.		
LIGHT INDUSTRIAL	F.U.	F.U.	S.F.	S.F.	S.F.	0.10	G.P.D.		
RESEARCH/OFFICE	F.U.	F.U.	S.F.	S.F.	S.F.	0.10	G.P.D.		
MAJOR INSTITUTIONAL	F.U.	F.U.	S.F.	S.F.	S.F.	0.15	G.P.D.		

\* WASTEWATER UNIT FLOW RATES: REFER TO SECTION 2730 IN THE CURRENT "UTILITY STANDARDS" FOR WASTEWATER DESIGN STANDARDS.

## ELECTRIC SERVICE INFORMATION - (CPAU OFFICE USE ONLY)

- All work per CEC and CPA Electric Service Requirements and Standards. Includes "LIKE-FOR-LIKE" replacement work. More details, visit: <http://www.paloalto.gov/ElectricServiceRequirements>
- Additional fees may apply after permit approval. Payment of the final invoice must be received by the City of Palo Alto before any work will be scheduled.
- Electric service panel must meet the AIC rating indicated above for the requested service voltage.
- Service Panels 400 Amps or greater: Submit factory drawings for approval. Panel less than 400 Amps: Catalog cutsheets are acceptable.
- Only socket type meters are allowed.
- Call Electric Operations (650) 496-6914 for service disconnect and reconnect, if required.
- All work must be inspected & approved by Electric Operations Inspection (650) 496-6977 & Building Inspection (650) 329-2496 prior to final connection by Electric Operations Crews.

Additional Sheets are Attached: Yes No

<b>Electric Service Information (CPAU use ONLY)</b>		Service Order Number	
Estimated Demand	kVA	Transformer kVA and Type	
Map Number		Transformer Number(s)	
<b>Fees</b>	\$	Minimum AIC rating of Electric Panel for requested service	_____A Symmetrical at _____V
Electric Application Approved by:		Phone #:	Date:

### UTILITY PLAN SUBMITTAL CHECKLIST:

This checklist is intended to provide general guidance and minimum criteria for the design and construction requirements for utility facilities for any development located within the City of Palo Alto. The purpose of this plan submittal checklist is to clarify the minimum information Utilities Engineering requires for the review of the service application. Utilities Engineering will only review and provide written comments on a completed set of design plans that are submitted for review.

- COMPLETED AND SIGNED UTILITY SERVICE APPLICATION INCLUDING UTILITY DEMANDS FOR THE REQUIRED SERVICES
- FINAL AND LEGAL ADDRESS FOR THE SERVICE OR METER LOCATION. ADU'S MUST HAVE AN ADDRESS TO ESTABLISH SERVICE.
- SITE PLAN SHOWING EXISTING AND PROPOSED UTILITY SERVICES, METER LOCATIONS, BACKFLOWS, CLEANOUT, BACKWATER VALVE ETC.
- EASEMENT REQUIREMENTS
- ARCHITECTURAL PLANS TO REVIEW METER LOCATIONS (ELEVATION PLANS, FLOOR PLANS, WINDOW SCHEDULES)
- ELEVATION PLANS SHOWING GAS/ELECTRIC METERS IN RELATION TO WINDOWS, VENTS, BUILDING EQUIPMENT OR SOURCES OF IGNITION
- PLUMBING, MECHANICAL PLANS INDICATING LOADS AND GAS PIPING DIAGRAM.
- SITE OR PLUMBING PLANS SHOWING THE CITY SEWER CLEAN OUT AND PROPOSED SEWER DISCHARGE CONNECTION. ADU'S ARE INCLUDED
- LANDSCAPING PLANS SHOWING EXISTING AND PROPOSED TREES TO BE PLANTED NEAR UTILITY LINES
- ELECTRICAL PLANS SHOWING UNDERGROUND AND OVERHEAD UTILITIES AND SERVICE POINT OF CONNECTIONS WITH METERS
- LOCATION OF ELECTRICAL MAIN SERVICE PANEL AND SUBPANELS IF RELOCATING THE ELECTRIC SERVICE MORE THAN 10 FEET.
- ELECTRIC SINGLE LINE DIAGRAM OF PROPOSED INSTALLATION (REQUIRED FOR 400 AMPS AND UP REQUESTS)
- FRONT VIEW PHOTOS OF EXISTING GAS AND ELECTRIC METERS (FOR SERVICE UPGRADES)
- ADDITIONAL UTILITY LOADS DETAILS BEYOND THOSE LISTED ON THE APPLICATION
- INTERCONNECTION AGREEMENT FOR NET ENERGY METERING GENERATING FACILITIES: PHOTOVOLTAIC, ENERGY STORAGE PROJECTS

# A GUIDE TO THE CITY OF PALO ALTO UTILITIES DEPARTMENT ELECTRIC SERVICE APPLICATION PROCESS

*The following procedure is intended to help you understand how your Utility Service Application for an electric service connection at your electric panel is normally processed.*

1. Customer presents to **BUILDING DEPARTMENT (BD)** (Development Center - 285 Hamilton Ave.) a completed "UTILITY SERVICE APPLICATION" for Commercial or Residential Electric Service including all service demands and **SITE and ELEVATION PLANS SHOWING THE ELECTRIC PANEL AND THE PROPOSED SERVICE LOCATION. NO FULL-SET SUBMITTALS PLEASE.** BD forwards the plans and application to UTILITIES ELECTRIC ENGINEERING ("UEE") for Utilities' review and approval.
2. UEE reviews plans and application. **INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED AND WILL BE RETURNED TO THE APPLICANT.** UEE assesses the work required to furnish service to meet customer's needs, as specified in the application, within **45 BUSINESS DAYS.** UEE will either send an invoice for Advance Engineering Fees, to cover cost of preparing project estimate, or for standard connection fees, for simpler projects. **You must have an approved electric application on file in UEE to schedule a disconnect / reconnect request.**
3. For **TEMPORARY ELECTRIC SERVICE APPLICATIONS**, present the "TEMPORARY ELECTRIC SERVICE" application to BD. Application will be approved within 1 BUSINESS DAY and an invoice will be sent to the customer. **TEMPORARY SERVICE WILL BE INSTALLED BY ELECTRIC UTILITY FIELD OPERATIONS WITHIN 1 – 2 BUSINESS DAYS FOLLOWING RECEIPT OF FULL PAYMENT AND PANEL APPROVAL, EVIDENCED BY INSPECTION METER RELEASE TAG.** Customer is responsible for contacting BD for panel inspection.
4. After plans are approved, UEE prepares the utility connection charges (if applicable) for the installation of the service and meter(s). The utility connection charges will either be attached to the Building Permit Plans or mailed to the customer. **It is the customer's responsibility to be aware of this billing and to make prompt payment.** Utility connection charges must be paid prior to the scheduling of any work performed by the City of Palo Alto. **PERMANENT UTILITY SERVICES WILL BE INSTALLED BY ELECTRIC UTILITY FIELD OPERATIONS BETWEEN 30 AND 40 DAYS FOLLOWING RECEIPT OF FULL PAYMENT AND COMPLETION BY ANY WORK REQUIRED OF APPLICANT.**
5. **After the electric panel or TEMP POST/TEMP SERVICE STRUCTURE passes inspection, the BD will "yellow tag" the electric meter** and send an electric meter set release tag to UTILITIES CUSTOMER SERVICE CENTER (SECOND FLOOR - CITY HALL BUILDING) which will establish an account for billing purposes. **Underground Trench inspection must have a "green tag" before final building inspection.** The Utilities Customer Service Center will check that all fees are paid before sending the electric meter installation tag to ELECTRIC OPERATIONS DISPATCH for meter installation. **ELECTRIC METER(S) WILL ONLY BE INSTALLED WITH FINAL INSPECTION TAGS IN PLACE. The Customer is responsible for coordinating ALL inspections with either the Building Department AND / OR Electric Operations Dispatch.**
6. YOUR UTILITY SERVICE IS NOW COMPLETE - THANK YOU FOR YOUR APPLICATION.

*The following directory will assist you if you have any questions throughout the installation process.*

## ASSISTANCE

- **BUILDING DEPARTMENT** (Development Center - 285 Hamilton Ave.)  
Development Center General Number ..... 329-2496
- **BUILDING INSPECTION** (Development Center - 285 Hamilton Ave.)  
Inspection Scheduling ..... 329-2496
- **UTILITIES ELECTRIC ENGINEERING**  
Contact - Electric Engineering, 1007 Elwell Ct. Office ..... 566-4500
- **UTILITIES CUSTOMER SERVICE CENTER** (2<sup>nd</sup> Floor, City Hall)  
Customer Service Representatives ..... 329-2161
- **ELECTRIC OPERATIONS DISPATCH** (Municipal Service Center, MSC)  
For Disconnect / Reconnect and Meter Installation ..... 496-6914
- **UNDERGROUND TRENCH INSPECTION** (Municipal Service Center, MSC)  
Contact - Inspection Supervisor ..... 496-6977



# City of Palo Alto Summary of Installation Requirements

## Commercial or Multifamily Electric Service

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This document contains a summary of the City of Palo Alto Utilities (CPAU) requirements for the project. The Applicant has the responsibility to ensure that their final design and installation complies with ALL City of Palo Alto standards. *CPAU standards are detailed in the Electric Service Requirements manual, available on the internet at: <http://www.paloalto.gov/ElectricServiceRequirements>*

### **SUMMARY OF GENERAL REQUIREMENTS**

The Applicant (includes customer, customer's contractor, customer's consultant, developer, or others working on behalf the owner) is responsible ALL costs associated with the provision of electric service as required for their project.

- Applicant must provide a completed Utility Service Application and site plan submittal. The site plan will include at a minimum, an outline of the property lines showing streets; an outline of buildings on the property; a proposed meter location; location of pools or spas; identification of any other significant features on the property that will impact either overhead or underground service wires; and a description of work. FULL-SET SUBMITTALS NOT REQUIRED.
- CPAU may charge the Applicant a non-refundable Advance Engineering Fee prior to the start of engineering design, plan review, and development of the cost estimate. To initiate engineering design, the Applicant must submit payment at Revenue Collections, 1<sup>st</sup> Floor, City Hall, City of Palo Alto. If the project is cancelled by the Applicant, the fee is forfeited.
- CPAU will only provide a maximum service size of 1,600 Amperes at 208Y/120V, three-phase, 4-wire. Any service larger than 1,600 Amperes will be served at 480 Volts. Primary metering is also available.
- Service upgrades requiring 400 Amperes or larger will be underground and will require a padmount transformer and Easement grant.
- CPAU provides Fiber Optic service to City of Palo Alto customers. Please contact CPAU Fiber Optic Marketing Coordinator at (650) 329-2275 for inquiries.



## SUMMARY OF TECHNICAL REQUIREMENTS

*Applicant is responsible for ensuring that final installations meet all City of Palo Alto requirements. Every project is different, contact CPAU Engineering for specific design requirements for your project.*

1. To provide electric service to the proposed development, the following may be required:
  - Underground primary distribution line extension
  - Underground secondary line extension
  - Transformer installation or replacement
  - Other primary equipment or replacement
2. Applicant shall provide all necessary underground substructures which may include the following:
  - Transformer Pad(s)
  - Guard Posts
  - Loadbreak Junction Pad
  - Primary Vault(s)
  - Primary Pull Box(es)
  - Primary Feeder Conduits
  - Secondary Pull Box(es)
  - Secondary Conduits
  - Service Conduit & Cable
3. CPAU will furnish and install (at customer's expense) all required:
  - Switch(es)
  - Transformer(s)
  - Primary cables
  - Secondary cables
  - Overhead Service Wire
4. The Applicant shall furnish and install service cables and conduit from each building to the CPAU utility pull box or service point (as determined by CPAU).
5. The Applicant shall furnish and install EUSERC compliant service equipment for each building. Meter locations shall be subject to CPAU's approval.
6. All 480 Volt services and all other services 400 Amperes or larger shall have a single main disconnect. Service equipment shop drawing submittal will be required for CPAU approval BEFORE equipment is manufactured. A copy of the same drawing shall be submitted to the City's Development Services Center for approval by the Building Inspector.
7. CPAU will take ownership and will be responsible for maintaining the new underground primary and secondary distribution systems, and service cables.
8. The Property title-holder will retain ownership of service conduits and substructures and are fully responsible for any maintenance or replacement, as necessary.
9. The owner/developer shall provide, at no charge to CPAU, easements and access to all electrical utility facilities that are in the private property. At a minimum, a draft easement shall be submitted before any service can be energized.
10. Sockets with Test Bypass Facilities are required for all commercial and multifamily services/panel.



# City of Palo Alto Summary of Service Equipment Requirements

## Commercial or Multifamily Electric Service

**THIS SHEET OUTLINES SOME OF THE REQUIREMENTS FOR SERVICES 400 AMPS OR GREATER.**

### SUMMARY OF SERVICE EQUIPMENT REQUIREMENTS

*Applicant is responsible for ensuring that final installations meet all City of Palo Alto and City of Palo Alto Utilities (CPAU) requirements.*

CPAU will furnish and install the necessary metering CT's, PT's, and test switch. For service equipment approval, applicant's equipment must comply with all CPAU and City of Palo Alto requirements including those summarized below. All service equipment will have provisions for sealing the meter per EUSERC requirements. Applicant shall provide service equipment shop drawings to CPAU for review, prior to manufacture, to avoid delays due to field modifications. Drawings should be sent to CPAU Electrical Engineering, 1007 Elwell Court, Palo Alto, 94303. The phone number for CPAU Electrical Engineering is 650-566-4500.

Final service equipment submittals must be provided to, and approved by CPAU prior to installation. Installation shall be inspected and approved by City of Palo Alto Building Department and CPAU before connection to CPAU's electrical system. The following information (where applicable) shall be shown on submittals:

1. Service Equipment: Indoor (NEMA 1 or better) or Outdoor (NEMA 3R or better)
2. Service Rating: \_\_\_\_\_ Amperes \_\_\_\_\_ Volts \_ \_ Phase \_ \_ Wires
3. Main Disconnect: Circuit Breaker or Fused Switch
4. Minimum Interrupting or Short Circuit Rating of Panel: \_ \_ A, RMS Sym. @ : \_ V L-L
5. CT Compartment (per EUSERC #320 or #322, whichever is applicable)
6. Meter Plate (per EUSERC #332)
7. Pull Section (per EUSERC #345)
8. Line Termination (per EUSERC #347)
9. Residential 400A (Class 320), 120/240 V meter panel (per EUSERC #302B)
10. Factory-installed bolt-type test by-pass/disconnect block (for self contained meters only)
11. CPAU installs only socket type meters. Meter socket require the following number of jaws:

120/240 V, single phase, 3 wire service	4	
120/208V, single phase, 3 wire service	5	(with jaw at 9 o'clock position)
120/208 V, three phase, 4 wire service	7 or 13	(7 up to 200A, 13 greater than 200A)
277/480 V, three phase, 4 wire service	7 or 13	(7 up to 200A, 13 greater than 200A)
12. Space for installing potential transformers shall be provided inside the electric panel per CPAU Drawing # SR-MT-M-1019, as required.

**NOTE:** Please contact the Electric Meter Shop, at (650) 496-6978 as soon as the equipment arrives at the job site to schedule the inspection of the equipment and installation of CPAU-furnished instrument transformers and other metering devices.

The service equipment will also have to be inspected and approved by the City of Palo Alto's Building Department Electrical Inspector, (650) 329-2496, before it can be energized.



**How long will it take to review our submittal?**

Providing all the information is available at the time of submittal, you can expect a 10 business days turn around for initial response.

**What kind of costs can I expect for an electric service?**

An estimated service order inclusive of labor and materials costs to provide the requested service will be required to determine the cost of providing electric service. The Applicant is responsible for ALL costs associated with the provision of electric service as required for their project, excluding the material cost of the utility transformer, switches, and electric meter.

**Other than the work I am proposing for my building, is there anything else I am required to install?**

You are responsible for installing all substructures (boxes, conduits, etc.) and service cable as determined to be required by CPAU to provide electric service.

**Where do I submit my Utility Service Application and plans?**

Utilities has a representative at the City of Palo Alto Development Center, 285 Hamilton Avenue, who can accept your application or answer questions about your project or the process. If necessary, a time can be set up to meet with staff in Engineering to discuss details of your project.

**Prior to submitting plans for permit on a new Commercial Development may I discuss what can be expected to provide electric service?**

CPAU would be more than willing to meet to do a preliminary review of your electric service needs. We can layout your service options and determine a service location relevant to the available source. We can provide a clear understanding of the utilities standards and policies regarding your service request. A Utilities representative is available at the Development Center for consultation.

**Is Electric Engineering located at the Development Center downtown?**

No, Utilities Engineering is located at 1007 Elwell Court off of East Bayshore Road near San Antonio exit off Highway 101. Our hours are Monday through Friday, 9:00am to 4:00pm.

**How do I get temporary power for construction?**

Complete an Electric Application for Temporary Commercial Electric service and submit to Utilities Engineering. This is a separate application form in addition to the Permanent Electric Application.