B ELECTRICAL LOAD CALCULATION WORKSHEET

CITY OF STOCKTON

COMMUNITY DEVELOPMENT DEPARTMENT – BUILDING & LIFE SAFETY DIVISION
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This worksheet may be used to calculate the capacity of an existing electrical service when your project includes additional electrical loads in accordance with California Electrical Code Article 220.82.

Project Address: _____ Date: _____

Main Electric Service Size: ☐ 100A ☐ 125A ☐ 150A ☐ 200A ☐ Other_____

GENERAL LOADS

Lighting & Receptacles	House sq. ft.:		x 3 VA=	
Kitchen appliance circuits (2 min.)	1500 VA x		circuits=	
Bathroom circuits (1 min.)	1500 VA x		circuit(s)=	
Laundry circuit	1500 VA x		circuit(s)=	
			Subtotal (A) =	

APPLIANCES AND EQUIPMENT – Use the actual Nameplate Rating (NPR) of the appliance. Enter "N/A" if not present at the site.

Range	NPR=	
Oven	NPR=	
Water Heater	NPR=	
Dishwasher	NPR=	
Garbage Disposal	NPR=	
EV Charger	NPR=	
Pool/Spa Pump	NPR=	
Total Subpanel Loads	combined=	
Other _____	=	
Other _____	=	
	Subtotal (B) =	

HVAC LOADS

Air Conditioning and Cooling	NPR=	
Heat Pump (w/o supplemental heating)	NPR=	
Heat Pump (w/ supplemental heating)	NPR + 65%=	
Electric Space Heating (< 4 units)	NPR x 65%=	
Electric Space Heating (≥ 4 units)	NPR x 40%=	
Electric Thermal Storage and Other	NPR=	
(Enter the single largest load from above)	**Subtotal (C) =**	

Subtotal (A)+(B)		**- 10,000 VA x 0.40**	**+ 10,000 VA=**	
			+ Subtotal (C)	
			÷ 240=	
			***Total Demand is:**	

*If the total demand, including any new equipment, is less than the rating of the existing electrical service then no service upgrade is necessary. If the total demand is greater than the rating of the existing electrical service, then a service upgrade is required with your project.

EXAMPLE:

Main Electric Service Size: ☐ 100A ☐ 125A ☒ 150A ☐ 200A ☐ Other_____

GENERAL LOADS

Lighting & Receptacles	House sq. ft.:	2,000	x 3 VA=	6,000
Kitchen appliance circuits (2 min.)	1500 VA x	2	circuits=	3,000
Bathroom circuits (1 min.)	1500 VA x	1	circuit(s)=	1,500
Laundry circuit	1500 VA x	1	circuit(s)=	1,500
			Subtotal (A) =	**12,000**

APPLIANCES AND EQUIPMENT – Use the actual Nameplate Rating (NPR) of the appliance. Enter "N/A" if not present at the site.

Range	NPR=	14,000
Oven	NPR=	N/A
Water Heater	NPR=	3,000
Dishwasher	NPR=	1,500
Garbage Disposal	NPR=	800
EV Charger *(proposed)*	NPR=	1,400
Pool/Spa Pump	NPR=	N/A
Total Subpanel Loads	combined=	N/A
Other _____	=	N/A
Other _____	=	N/A
	Subtotal (B) =	**20,700**

HVAC LOADS

Air Conditioning and Cooling	NPR=	6,960
Heat Pump (w/o supplemental heating)	NPR=	N/A
Heat Pump (w/ supplemental heating)	NPR + 65%=	N/A
Electric Space Heating (< 4 units)	NPR x 65%=	9,750
Electric Space Heating (≥ 4 units)	NPR x 40%=	N/A
Electric Thermal Storage and Other	NPR=	N/A
(Enter the single largest load from above)	**Subtotal (C) =**	**9,750**

Subtotal (A)+(B)	**32,700**	**- 10,000 VA x 0.40**	**9,080**	**+ 10,000 VA=** **19,080**
				+ Subtotal (C) **28,830**
				÷ 240=
				***Total Demand is:** **121 amps**

**Total demand with the proposed EV charger is less than the main electrical service rating of 150 amp, therefor an electrical service upgrade is not required.*

SAMPLE