OPTIONAL CALCULATIONS - EXISTING ONE FAMILY DWELLING
NEC 220-31

(A) Contractor/Owner _____ (B) Address: _____

(C) Building Square Footage _____

	Optional Rating	Name Plate Rating (NPR)	*Volt AMP VA
(D) General Lighting Loads and Receptacle Loads _____ Sq. Ft. x 3 VA =	n/a	n/a	
(E) Kitchen Small Appliance 2-20A @ 1500VA =	n/a	n/a	3,000

OTHER LOADS

Range Top	7,000 VA			VA
Single Oven ....Each____ x	8,500 VA			VA
Freestanding Stove	12,000 VA			VA
Other Cooking Unit	7,000 VA			VA
Dishwasher	1,500 VA			VA
Compactor	1,600 VA			VA
Disposal	800 VA			VA
Microwave	1,200 VA			VA
Clothes Washer	1,500 VA			VA
Dryer	7,000 VA			VA
Electric Water Heater				VA
Attic Fan ....Each____ x	200 VA			VA
Vent Fan ....Each____ x	150 VA			VA
Self Contained Spa	10,000 VA			VA
Pool Equipment ....Total All Pumps				VA
Additional Appliances				VA
				VA
		TOTAL (F)		VA

(V) HEATING/AIR CONDITIONING

First 8,000 VA x 100% = 8,000 VA

A/C N.P.R. _____ x 100%
Electric Htg. N.P.R. _____ x 100%
(Note: Use the largest A/C or Htg.)

Remaining (G) _____ x 40% = (H) _____ VA

Htg.- A/C or Heat Pump @ 100% = (I) _____ VA

TOTAL VA (J) _____ VA

Heat Pump
Heat Pump N.P.R. _____ x 100%
Aux. Heat Strips _____ x 100%
TOTAL Heat Pump Load _____

TOTAL VA (K) _____ VA = (L) _____ VA
240V 240V

Existing Service = (M)_____ VA

If Line (L) is greater than Line (M) a service change is required.

* Volt Amps = Watts

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INSTRUCTIONS FOR COMPLETING THE OPTIONAL LOAD CALCULATION WORKSHEET

1. Write the name of the person who is obtaining the permit on line (A) and the address on line (B).

2. Calculate the building square footage excluding the garages and open porches; enter this figure on line (C).

3. Multiply the building square footage times 3 Volt-Amps (Watts) and enter the answer on line (D).

4. Two 20-amp circuits for the kitchen small appliances is given on line (E)

OTHER LOADS

5. The Name Plate Rating (N.P.R.) is noted on a plate attached to the appliance. Supply the N.P.R. for each of the applicable appliances.

   If the N.P.R. cannot be located substitute the Volt Amp rating listed in the optional rating column.

6. Total the Volt-Amp column line and enter the sum on line (F)

HEATING/AIR CONDITIONING

7. Enter the Volt-Amp rating of the heating and air conditioning. Use the *largest* rating on line (I). If a heat pump is utilized, total the N.P.R. of the heat pump and any auxiliary heat strips. Enter this *total* rating on line (I).

8. Subtract 8000 Volt-Amp from the total, line (F), and record the answer on line (G). Multiply the answer by .40 and enter on line (H).

9. Total the 8000 VA plus (H) and (I) and list on line (J) and (K). Divide line (K) by 240 Volts to determine the service amperage. This amperage is recorded on line (L).

10. Write the existing service size on line (M).