



2005 NATIONAL ELECTRICAL CODE OPTIONAL RESIDENTIAL ELECTRICAL LOAD CALCULATION FOR SINGLE FAMILY RESIDENCES ONLY

Owner _____ Prepared by _____

Address _____

General Lighting Load Sq. Ft. _____ x 3 VA (a) = _____ VA

Small Appliance Circuits at 1500 VA x _____ (Minimum of 2) (b) = _____ VA

Laundry Circuit at 1500 VA x _____ (Minimum of 1) (c) = _____ VA

Electrical Cooking Appliances at nameplate rating (d) = _____ VA

Dryer Load per National Electrical Code Table 220-54 (e) = _____ VA

Fixed Appliances – Use 100% of the nameplate rating

Microwave	1500 VA x _____ = _____	Food Center	600 VA x _____ = _____	
Compactor	1200 VA x _____ = _____	Disposal	600 VA x _____ = _____	
Dishwasher	1200 VA x _____ = _____		_____ VA x _____ = _____	
Water Heater	4500 VA x _____ = _____		_____ VA x _____ = _____	
Central Vacuum	1800 VA x _____ = _____			Appliance Subtotal (f) = _____ VA

Total for all lighting and appliance loads (a)+(b)+(c)+(d)+(e)+(f) (g) = _____ VA

Total (g) _____ VA – 10,000 VA = _____ VA x .40 (40%) (h) = _____ VA

Heating/Air Conditioning Calculation

By nameplate ratings of heat pumps or AC compressors	Heat Strips for Heat Pumps
_____ VA x _____ = _____ VA	_____ VA x _____ = _____ VA
_____ VA x _____ = _____ VA	_____ VA x _____ = _____ VA
_____ VA x _____ = _____ VA	Split System FAUs
	_____ VA x _____ = _____ VA
	_____ VA x _____ = _____ VA

By Rule of Thumb Total Tons of Cooling _____ X 2000 VA = _____ VA Total of all HVAC equipment (i) = _____ VA

Plus 10,000 VA at 100% (j) = 10,000 VA

Plus 4800 VA spare for new house only per CLV Ordinance (k) = 4,800 VA

Grand Total (h)+(i)+(j)+(k) (l) = _____ VA

Minimum required ampacity (l) = _____ VA divided by 240V = _____ Amps

Service Size _____ Grounding Electrode Conductor _____