



## CITY OF HENDERSON Department of Building & Fire Safety RESIDENTIAL ELECTRICAL LOAD CALCULATIONS

Owner \_\_\_\_\_ Date    /    /   

Address \_\_\_\_\_ Prepared by \_\_\_\_\_

General Lighting Load Sq.Ft. \_\_\_\_\_ X 3 Volt Amps = \_\_\_\_\_ VA

Small Appliance Circuits at 1500 VA each x \_\_\_\_\_ (min. of two) = \_\_\_\_\_ VA

Laundry (Washing Machine) Circuit 1500 VA x \_\_\_\_\_ (min. of one) = \_\_\_\_\_ VA

**Sub-Total** = \_\_\_\_\_ VA

First 3,000 VA of Lighting, Small Appliance, Laundry Load at 100% =   3,000   VA

From 3,001 to 120,000 VA at 35% \_\_\_\_\_ X .35 = \_\_\_\_\_ VA

Over 120,000 VA use 25% \_\_\_\_\_ X .25 = \_\_\_\_\_ VA

Electrical Cooking Appliances, Use NEC Table 220-55

(Number of Appliances) \_\_\_\_\_ Demand \_\_\_\_\_ % x Total KW \_\_\_\_\_ (Column A) x 1,000 = \_\_\_\_\_ VA

(Number of Appliances) \_\_\_\_\_ Demand \_\_\_\_\_ % x Total KW \_\_\_\_\_ (Column B) x 1,000 = \_\_\_\_\_ VA

(Number of Appliances) \_\_\_\_\_ Demand \_\_\_\_\_ x Total KW \_\_\_\_\_ (Column C) x 1,000 = \_\_\_\_\_ VA

Dryer Load NEC Table 220-54 = \_\_\_\_\_ VA

**(1) Sub-Total** = \_\_\_\_\_ VA

Heating/Air Conditioning – List type and VA at 100%

(H) Heat Pump	(G) Gas + Cool	(S) Heat Strip	(A) Cir Fans
( ) _____	( ) _____	( ) _____	( ) _____
( ) _____	( ) _____	( ) _____	( ) _____
( ) _____	( ) _____	( ) _____	( ) _____
( ) _____	( ) _____	( ) _____	( ) _____

**(2) Sub-Total** = \_\_\_\_\_ VA

Fixed Appliances – If fewer than four units, use 100%. If four or more, use 75% of the nameplate rating.

Microwave	1500 VA x _____	Food Center	600 VA x _____
Compactor	1200 VA x _____	Hot Water	4500 VA x _____
Dishwasher	1200 VA x _____		_____ VA x _____
Disposal	600 VA x _____		_____ VA x _____
Cent Vacuum	1800 VA x _____		_____ VA x _____

Appliance Subtotal \_\_\_\_\_ x **(100%) OR ( 75%)** **(3) Sub-Total** = \_\_\_\_\_ VA

Add 25% of the largest motor (typical AC compressor)

\_\_\_\_\_ X 25% LM \_\_\_\_\_ **(4) Sub-Total** = \_\_\_\_\_ VA

**5) Spare 20amps x 240 volts Sub-Total** =   4,800   VA

**GRAND TOTAL (Add Sub-Totals (1), (2), (3), (4), (5))** = \_\_\_\_\_ VA

Total Volt Amps \_\_\_\_\_ Divide by 240 Volts = \_\_\_\_\_ Amps

Service Size \_\_\_\_\_ Grounding Electrode Conductor \_\_\_\_\_