

CMGT 235 – Electrical and Mechanical Systems**Homework #31 – Single-Family Dwelling Service Entrance Calculation**

Due: 12/12/2019

Points: 20

Name: _____

1. Complete the Single-Family Dwelling Service-Entrance Calculations (Standard) Form for the following:
Single-Family Dwelling – Service Entrance Calculations (Standard)

2650 ft ² of Living Floor Area	1 Dishwasher: 12 AMPS, 120V
4 Small-Appliance Branch Circuits	1 Garbage Disposal: ½ hp, 115V
2 Laundry Branch Circuits	1 Trash Compactor: 10 AMPS, 120V
1 Electric Dryer: 5.2 kW, 240V	2 Attic Fans: 1/4 HP, 120V
1 Wall-mounted Oven: 6 kW, 240V	1 Garage Door Opener: ¾ hp, 120V
1 Electric Range: 13 kW, 240V	1 Central A/C Unit: 28A, 240V
1 Under-Cabinet Microwave Oven: 12A, 120V	1 Electric Heater: 4 kW

2. Show Calculation for:

Step 7. Electric Range, Wall-Mounted Ovens, Counter-Mounted Cooking Units

Wall-mounted oven and Electric Range are supplied from a single branch circuit and located in the same room.

Step 21. Raceway Size

QTY	GAUGE	TYPE	Cross-Section Area	EMT
			Total Cross-Section Area	