



# City of San Dimas

## Building and Safety Division

Phone: (909) 394-6260 / E-Mail: [building@sandimasca.gov](mailto:building@sandimasca.gov)

# Residential EV Charging Stations

Governing Code: 2022 California Electrical Code & City of San Dimas Municipal Code

Job Address: \_\_\_\_\_ Permit Number: \_\_\_\_\_

Scope of Work: \_\_\_\_\_

Requirements for Submittal:

(1) Electrical Application      (3) Copies of Site Plan      (2) Copies of this completed form

Please fill out the charts below by checking the items that apply to your project:

| Charger System or Outlet<br>(must be within 25-feet<br>of vehicle parking) |                     | Overcurrent Protection<br>Ampere-Rating<br>(GFCI Protection Required) |    |    |    |    |     | Conduit Type |     |     |
|--|---------------------|---|----|----|----|----|-----|--------------|-----|-----|
| Garage<br>(Interior)   | Exterior of<br>Home | 30  | 40 | 50 | 60 | 80 | 100 | EMT          | FMC | PVC |

| Main Panel Overcurrent<br>Protection |            |            |            |            | Wire Size / EGC Size<br>(Copper / AWG / THWN/THHN) |        |      |     |       | Conduit Size (inches) |   |      |
|--------------------------------------|------------|------------|------------|------------|--|--------|------|-----|-------|-----------------------|---|------|
| 100<br>AMP                           | 125<br>AMP | 150<br>AMP | 175<br>AMP | 200<br>AMP | 10 / 10  | 8 / 10 | 6/10 | 4/8 | 3 / 8 | ¾                     | 1 | 1.25 |

\*\*As an alternate, Nonmetallic Sheathed Cable (aka: ROMEX Cable or NMC) may be used if it is installed in interior locations only and protected from physical damage by placing the cable inside of the wall or attic space.

| Sum of the Total Watts Used<br>from Table on Sheet 2   | Total Watts Used                          | Minimum Required Size<br>of Main Panel<br>Overcurrent Protection |
|--|---|--|
|  | If up to 48,000 Watts                     | 100 Amperes  |
|  | If greater than 48,000 up to 63,000 Watts | 125 Amperes  |
|  | If greater than 63,000 up to 78,000 watts | 150 Amperes  |
|  | If greater than 78,000 to 108,000 watts   | 200 Amperes  |
| If greater than 108,000 watts then a full standard load calculation is required. Use of this form is not accepted. |   |  |

**\*\* Loads shown are rough estimates only; actual loads may vary – for a more precise analysis, consult with a trained electrical professional. This is not to be used to determine size of a new electrical service.**

| Check all<br>Applicable<br>Loads   | Description of Load  | Typical Usage   | Watts<br>Used |
|--|--|-----------------|---------------|
|  | Multiply square footage of the home by 3   | 3 watts/sq. ft. |               |
| <b>Kitchen Circuits</b>  |  |                 |               |
|  | Kitchen Circuits   | 3,000 Watts     |               |
|  | Electric Oven  | 3,000 Watts     |               |
|  | Electric Stove Top   | 5,000 Watts     |               |
|  | Microwave  | 1,500 Watts     |               |
|  | Garbage Disposal – under kitchen sink  | 1,000 Watts     |               |
|  | Automatic Dishwasher   | 3,500 Watts     |               |
| <b>Laundry</b>   |  |                 |               |
|  | Laundry Circuit  | 1,500 Watts     |               |
|  | Electric Clothes Dryer   | 4,500 Watts     |               |
| <b>Heating and Air Conditioning</b>  |  |                 |               |
|  | Central heating (gas) and air conditioning   | 7,000 Watts     |               |
|  | Central Electric Furnace   | 8,000 Watts     |               |
|  | Whole house or attic fan   | 500 Watts       |               |
|  | Electric water heater (tank storage type)  | 4,000 Watts     |               |
|  | Swimming pool pump (each)  | 3,500 Watts     |               |
|  | OTHER: (describe)  |                 |               |
| <b>Electric Vehicle Charger Circuit</b>  |  |                 |               |
|  | Use nameplate rating in watts or calculate:<br>(Ampere rating of circuit by 240 volts = Watts) |                 |               |
| Add up all of the watts for the loads listed above (total watts used):<br>Transfer this number to the table on sheet 1 to determine the minimum<br>required size of service. |  |                 |               |

Please note that this electrical calculation is a voluntary compliance alternative and you may wish to hire a qualified individual or company to perform a thorough evaluation of your electrical service in lieu of this alternative methodology. Use of this electrical load calculation estimate and form is at the user's risk and carries no implied guarantee of accuracy. Users of this methodology and these forms are advised to seek professional assistance in determining the electrical capacity of the service panel.

**By my signature, I attest that the information provided is true and accurate.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

# SAMPLE SITE PLAN

