



**CITY OF GENEVA
BUILDING DIVISION**
109 JAMES STREET
GENEVA, IL 60134
630/262.0280
www.geneva.il.us

Electric Vehicle Charging Station Permit

Revised: 9/1/23

Do I need a permit?

Depending on the current configuration of your electrical service, and if a new electrical panel, sub-meter or outlet are needed to accommodate your vehicle's charging needs, a building permit may be required. If you already have the appropriate receptacle (either 120VAC or 240VAC) a building permit is not required. A building permit is required for all new installations and modifications to electrical panels, meters, and electrical outlets.

To determine if you already have the appropriate receptacle first confirm with your auto dealership what charging equipment your vehicle needs and the installation requirements. There are three types of electric vehicle charging stations:

Level 1 Charging – Provides charging through a common residential 120-volt (120V) Alternating Current (AC) outlet. The AC current is converted to direct current (DC) on board the vehicle to charge the battery. This charging level can take 40-50 hours to fully charge a battery electric vehicle (BEV) and 5-6 hours for a plug-in hybrid electric vehicle (PHEV), depending on how drained the battery is.

Level 2 Charging – Provides higher-rate AC charging through 240V (in residential applications) or 208V (in commercial applications) electrical service, and is common for home, workplace, and public charging. This charging level can take 4-6 hours to fully charge a BEV and 1-2 hours for a PHEV, depending on how drained the battery is.

Direct Current Fast Charging – Provides fast charging through 480V and higher electrical services, which converts AC to DC and Volts DC (VDC) within the charging station to deliver DC power directly to the battery. Direct current fast charging equipment offers rapid charging along heavy-traffic corridors at installed stations. DCFC equipment can charge a BEV to 80 percent in just 20 minutes to 1 hour. Most PHEVs currently on the market do not work with fast chargers.

Have a qualified electrical contractor provide load calculations for the existing electrical service. This information will need to be submitted to obtain a permit.

Application and Drawing Procedures:

The following are guidelines and comments for obtaining an electric vehicle charging station permit:

- An Application for permit is to be filled out and submitted to the Building Division.
- For general permit application questions for any property within the City of Geneva, please contact the Building Division at 630 262-0280 or pdf@geneva.il.us.
- Mill Creek residents with building permit questions should contact the Kane County Building Division at 630 232-3485 or keriazakosEleas@co.kane.il.us because Mill Creek properties are not under the jurisdiction of the City of Geneva.
- The contractor's name, address, phone number and, if required, license numbers are to be filled out when submitting the application.

- If the contractor is a registered electric vehicle charging station installer with the Illinois Commerce Commission (ICC), provide the ICC registration number. A list of certified electric vehicle charging station installers is available on the [ICC's website](#).
- Two (2) copies of the plans showing the following information:
 - Electric panel must be provided with proper working clearance (3 foot by 3 foot of clear space must be maintained in front of the panel)
 - Detailed 1-line electrical diagram plus load calculations
- Permit fee is paid after review and approval of all required documents; you will be called when permit is ready to be picked up. Review is completed within 10 days after ALL required documents are received.

Fees: Electric Vehicle Charging Station

- \$50.00 plan review fee plus
- \$75.00 for the first \$1,000 of project cost plus
- \$10 per each thousand or portion of the project cost after the first \$1,000
- **Re-inspection fee:** \$75.00 to be paid prior to re-inspection if an inspection has failed.
- We accept cash, check (made payable to the City of Geneva), MC, VISA, MC, and AMEX.

General Comments:

- Installation shall meet all the requirements of the 2005 National Electrical Code (NEC)
 - See Article 625 for EV charging requirements
- Panel location
 - 3 foot by 3 foot clear floor space is required in front of the electrical equipment.
- A minimum of 24-hour notice is required when scheduling any inspection.
- Service size to be a minimum of 100 amp or the load calculation, whichever is greater.
 - If electric service upgrade is required additional information will be required

Inspections – Clarification and Details:

The following is a list of inspection(s) that may be required for your project and the approximate amount of time it will take for the inspection.

- ✓ **Final Inspection** **1/2 hour**

The following are general guidelines and details on the types of inspections that may be required for your project. For further clarification, please call our office and speak with one of our building inspectors. (630-262-0280)

Final:

- ✓ Check electric panel location.
- ✓ Verify panel bonding and grounding.
- ✓ Verify that the electric panel is labeled.
- ✓ Verify that the installation meets all NEC and manufacturer requirements.

Building Codes:

The following are the Building Codes the City of Geneva has adopted.

City of Geneva Municipal Code	2015 Int'l Residential Code w/amendments
2009 Int'l Building Code w/amendments	2009 Int'l Fire Code w/amendments
2015 Int'l Mechanical Code	2018 Int'l Energy Conservation Code
2005 Nat'l Electrical Code	2015 Int'l Swimming Pool and Spa Code w/amendments
2014 State Plumbing Code	2015 Int'l Fuel and Gas Code w/amendments

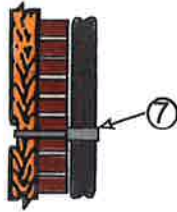
Homeowner – Contractor Responsibilities:

- It is the responsibility of the homeowner/contractor to schedule the required inspections. The required inspections are indicated on the plan review form, which is attached to your permit and the field copy of drawings. When calling to schedule an inspection, please have the address and permit number available. Inspections are completed within 5 days after the request for inspection.
- Inspections shall be canceled a minimum of 24 hours before the scheduled time.

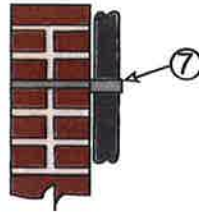
City of Geneva- Steel Conduit Service Riser

For Service Entrance Capacity of 400 Amperes or Less - Single-Phase
200 Amperes or Less - Three-Phase

All installations shall follow 2005 NEC

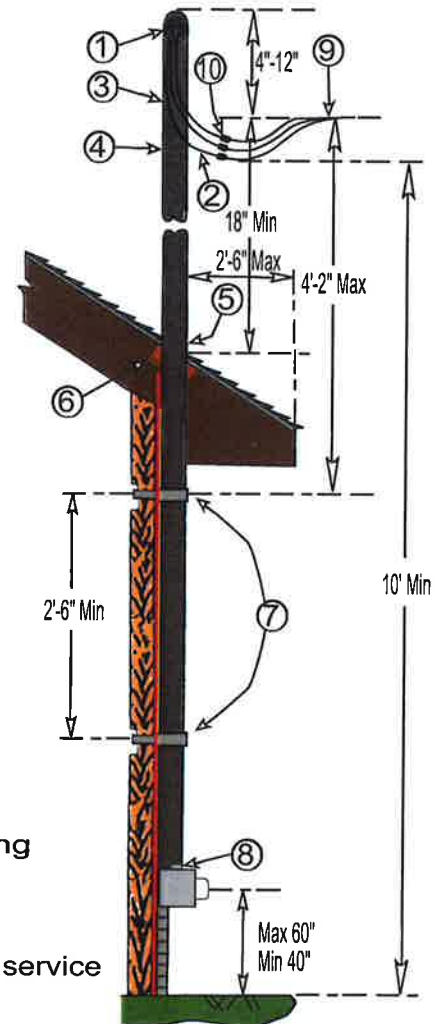


Installation on Brick Veneer Wall



Installation on Brick Wall

Installation on Frame or Stucco Wall



* Ground wire must be bonded in the meter can

NO ROOF PLATES PERMITTED

I. Customer furnishes, installs, and maintains the following equipment:

- 1) Service head (Weatherhead)
- 2) Service run wires (allow a minimum of 24 inches beyond the service head to make connections to service drop)
- 3) Service attachment (Porcelain)
- 4) Rigid steel conduit - 2 1/2" for 100 ampere or smaller or 3" for larger service entrance equipment or metallic raceway of equivalent strength may be used.
- 5) Metal flashing sealed with mastic. (See Note)
- 6) 2" x 4" blocking solidly installed between rafters. (See Note)
- 7) Mounting clamp with 1/2" bolts, nuts, and washers. For frame, stucco, or brick veneer, install bolts in center line of studding or, in the case of two bolt strap attachment, straddling a stud with an anchor plate bridging stud.
- 8) Meter connection device adapter.(Hub)

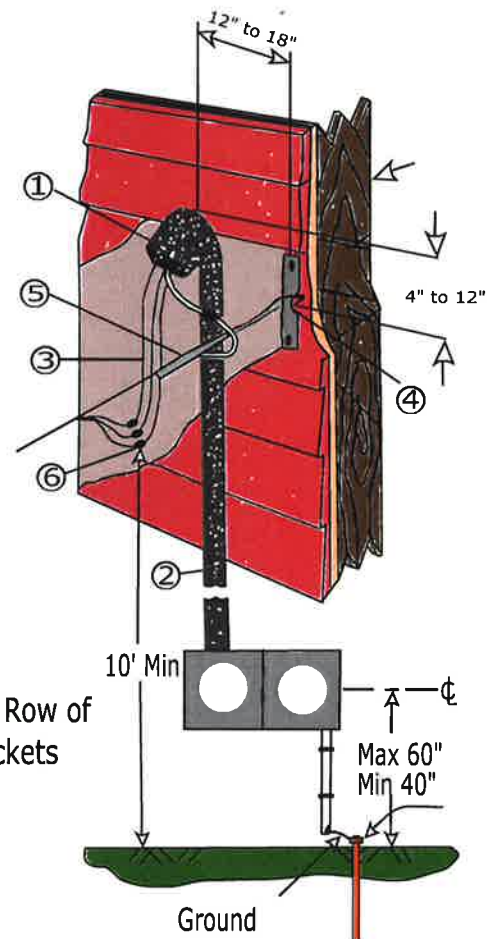
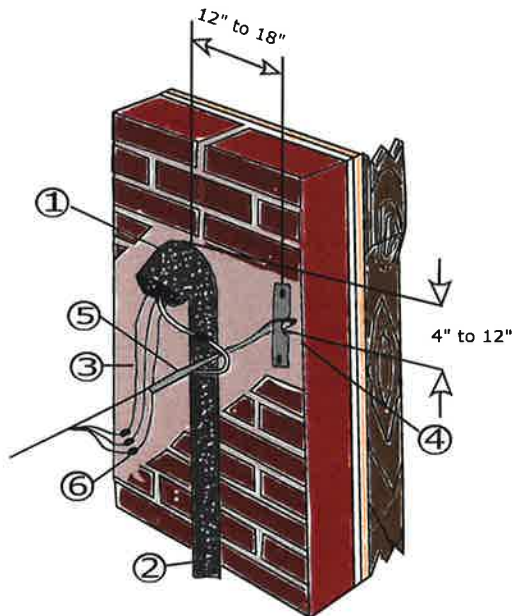
II. Company furnishes, installs, and maintains the following equipment:

- 9) Service drop dead-end (Bail)
- 10) Connectors for connecting Customer's wires to service drop.

Note: Items 5 and 6 required where the riser extends through the roof.

City of Geneva- Service Attachments

For Frame, Stucco, or Brick Veneer installations 400 Amperes or less- Single-Phase
200 Amperes or less- Three-Phase



Single socket or Single Row of
Horizontal Grouped Sockets

*Grounding wire must be bonded in meter can

I. Customer furnishes, installs, and maintains the following equipment:

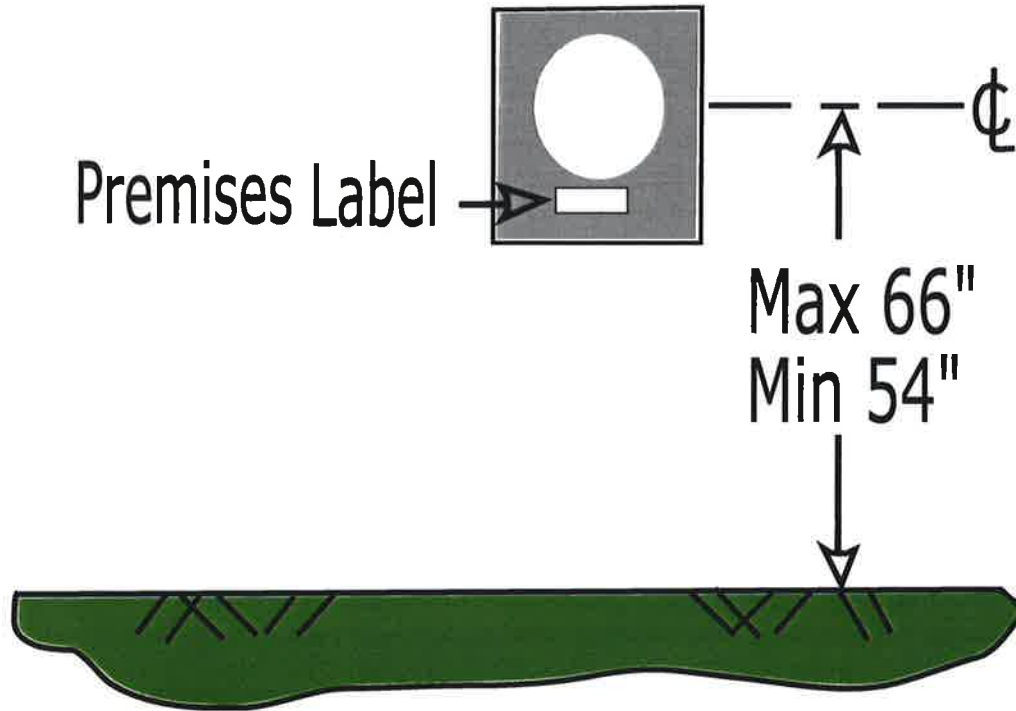
- 1) Service head (Weatherhead)
- 2) Service mast
- 3) Service run wires (allow a minimum of 18 inches beyond the service head to make connections to service drop)
- 4) Service attachment wall strap (Joslyn #J7692 or equivalent to the center line of studding with 4" long 1/2" lags.
When used on brick wall, service attachment wall strap shall be used with two 1/2"

II. Company furnishes, installs, and maintains the following equipment:

- 5) Service drop dead-end
- 6) Connectors for connecting Customer's wires to service drop.

City of Geneva- Meter Specification

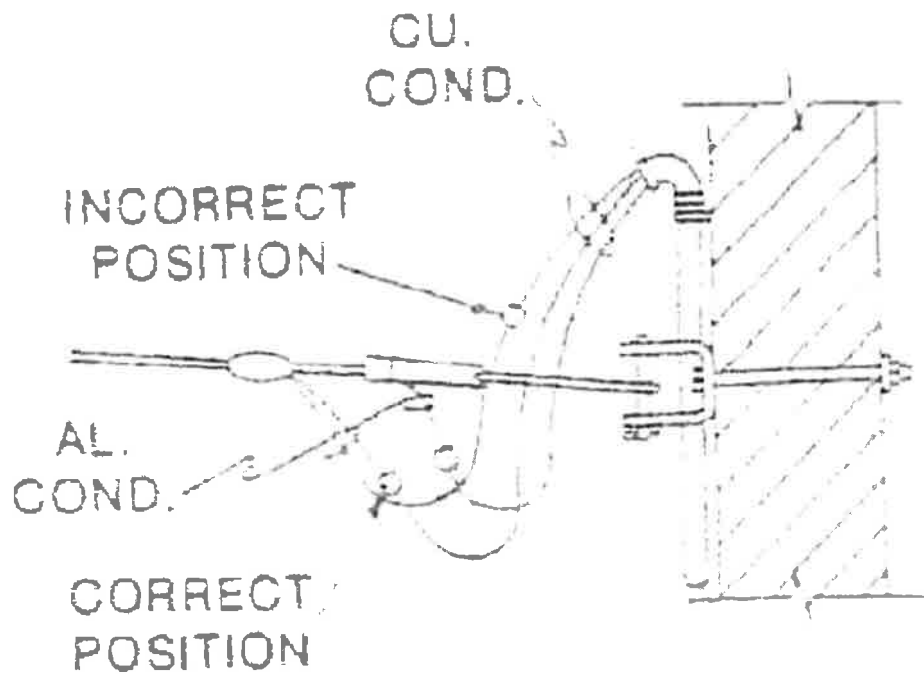
Transformer Rated Socket



*Ground wire must be bonded in meter can

City of Geneva- Service Wiring

For Frame, Stucco, or Brick Veneer installations 400 Amperes or less- Single-Phase
200 Amperes or less- Three-Phase



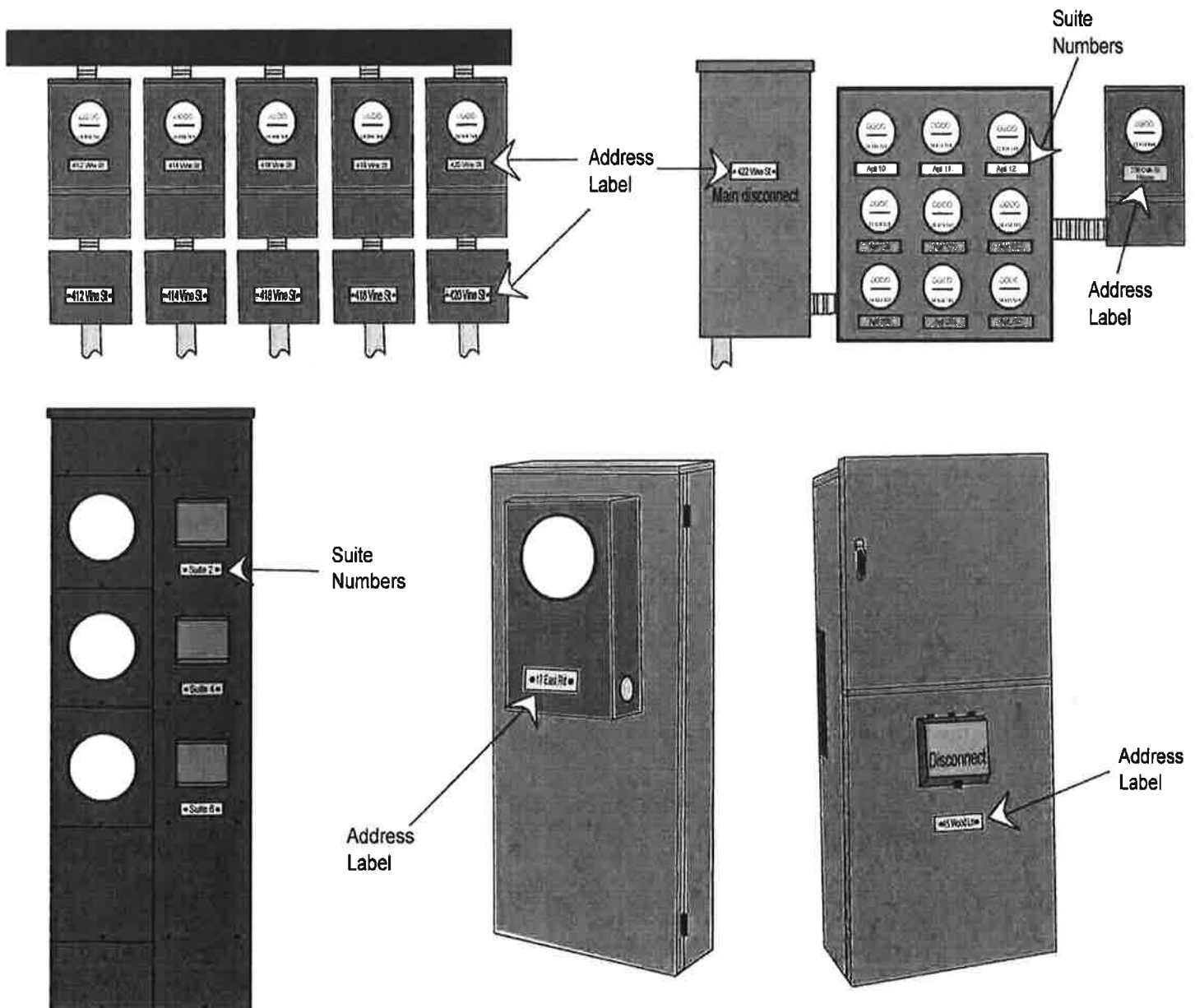
City of Geneva - Meter Address Labeling

Meter address labels must be installed on EVERY commercial building AND residential building with more than one address (i.e. two flat, duplex, apartments, etc.)

Meter Socket/ Service Disconnect Labeling

- Meter sockets must be permanently labeled to indicate the part of the premises they serve, for example, the suite (0-99 = Basement, 100-199 = 1st floor, ect.) number in addition to complete address(number and street name).
- The customer's name is not acceptable.
- The labels must be engraved phenolic nameplates, at least 1" high, and riveted into panel cover.
- Felt-tip pens and label maker tape are not considered permanent marking.

Service Will Not Be Established Until Label Is Complete



VERTICAL CLEARANCE FROM GROUND

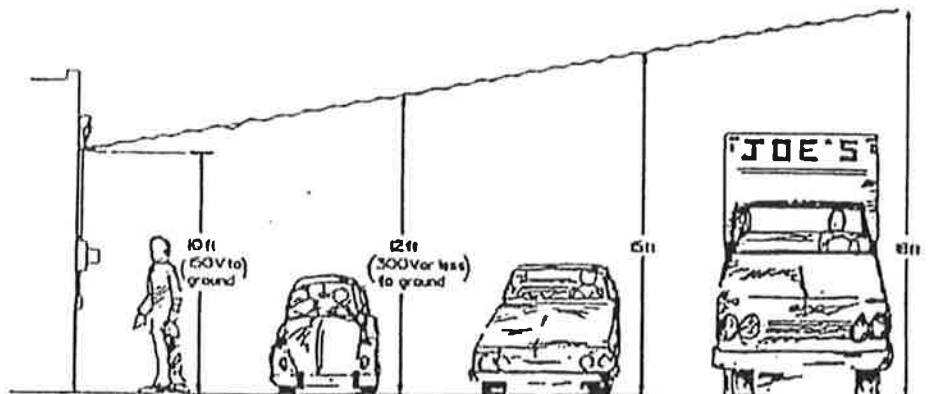
Service - drop conductors where not in excess of 600 volts, nominal, shall have the following minimum clearance from final grade.

10 feet - at the electric service entrance to buildings, or at the drip loop of the building electric entrance, measured from final grade or other accessible surface only for service - drop cables supported on and cabled together with a grounded bare message and limited to 150 volts to ground.

12 feet - for those areas listed in the 15 foot classification when the voltage is limited to 300 volts to ground.

15 feet - over residential property and driveways, and those commercial areas not subject to truck traffic.

18 feet - over public streets, alleys, roads, parking areas subject to truck traffic, driveways on other than residential property, and other land traversed by vehicles such as cultivated, grazing, forest and orchards.





CITY OF GENEVA
BUILDING DEPARTMENT
109 JAMES STREET
GENEVA, IL 60134
630/262.0280
pdf@geneva.il.us

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PERMIT NUMBER _____

BIN NUMBER _____

APPLICATION FOR ELECTRIC VEHICLE CHARGING STATION PERMIT

PROJECT ADDRESS _____

APPLICANT

Check here if applicant is property owner

Name _____

Address _____
City State Zip

Email _____ Phone _____

PROPERTY OWNER

Name _____

Address _____
City State Zip

Email _____ Phone _____

CONTRACTOR

Name _____

Address _____
City State Zip

Email _____ Phone _____

ICC Registration # _____

BUILDING TYPE

- Residential
- Multi-Family
- Commercial

TYPE OF CHARGING STATION(S)

- Level 1 Charging
- Level 2 Charging
- Direct Current Fast Charging

NUMBER OF CHARGING STATIONS

Level 1 Charging _____
 Level 2 Charging _____
 Direct Current Fast Charging _____

DESCRIPTION OF WORK

Applications will not be accepted without supporting documentation, attach additional sheets and submit plans/drawings, plat of survey, etc. as needed to illustrate proposed work

HISTORIC PRESERVATION

Is subject property located in the Historic District or a Historic Landmark? Historic Preservation Commission review is required for exterior improvements.

Yes No

ZONING

What zoning district is the property located in? _____

Is the use permitted at this location? Yes No

Is a variance needed? Yes No

PROJECT COST

What is the estimated project cost? _____

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OR THAT THE PROPOSED WORK IS AUTHORIZED BY THE OWNER OF RECORD; THAT I HAVE BEEN AUTHORIZED BY THE OWNER TO MAKE THIS APPLICATION AND TO SCHEDULE ALL NECESSARY INSPECTIONS AS AN AGENT, AND THAT I AGREE TO CONFORM TO ALL APPLICABLE CODES, LAWS, AND ORDINANCES OF THE CITY OF GENEVA.

Signature _____

Date _____

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FEES

ROUTING

Building Permit Fee _____
 Fire Department Fee _____
 Plumbing Fee _____
 Public Works Fee _____
 Tree Preservation Fee _____

Engineering _____
 Fire _____
 Electric _____
 City Engineer _____

Historic Preservation _____
 Tree Preservation Review _____
 Planning/Zoning _____
 First Inspection Services _____

TOTAL FEES _____