

Electrical Requirements

*This handout is for informational purposes only.
The provisions of the City's adopted codes prevail.*



Document Submittal List

- [Permit Application for Construction or Use.](#)
- Copy of electrician's license
- Written scope of work and signed contract

Failure to provide any of the above documents may result in processing delays.

General Information and Fees

- A permit is required to install, add, or alter, any electrical system or equipment other than changing lamps, receptacles, switches, or similar apparatus.
- All work is to be done in accordance with the 2014 National Electrical Code and the amendments adopted by the City of Warrenville. For additional information refer to the City Code and the summary of amendments included in this document.
- All contracted electrical work shall be performed by a licensed electrician. The electrical license must be one which was acquired by passing a written electrical examination offered by an approved municipality or a national contractor/trades journeyman or higher electrician certification by the International Code Council®.
- The application review period averages two weeks. The applicant will be contacted when the permit is ready for issuance and payment.
- If work commences prior to permit issuance, the permit fee shall be doubled.
- A list of required inspections is provided on the reverse side of the permit. Inspections must be scheduled at least one day prior to the desired inspection date by calling the Warrenville Community Development Department (630-393-9050).
 - Call for a rough-in inspection when all of the raceways and boxes are installed with wires pulled in raceways. Do not cover any work with insulation, receptacles, or wall switches until the inspector has approved it.
 - Be sure that panel boxes are covered and circuits are labeled in the correct spaces on the box.
 - All equipment, fixtures, switches, and appliances must be installed, and energized for the final inspection.
- A permit may become invalid if work does not begin within 180 days of issuance, or if construction has been halted and not resumed for a period of 180 consecutive days.
- Homeowners Association (HOA) approval may be required before commencing work. The issuance of a permit does not exempt HOA rules and regulations.

- It is the homeowner/contractor's responsibility to have underground utilities located no less than 48 hours prior to digging by calling J.U.L.I.E (811).
- Fees vary based on the scope of work and are outlined in the fee schedule available on the City's website.
- Approved construction documents shall be available on site at all times.
- Alterations to the approved plans must be submitted to the Chief Code Official in writing for review and approval prior to construction.

Summary of City of Warrenville amendments to the 2014 NEC

- EMT is required in remodeling and new construction, conductors shall be installed completely in EMT. Short lengths of flexible metal conduit may be permitted by the Chief Code Official.
- All conductors for wiring must be solid copper.
- All commercial work requires conductors be a minimum size #12 AWG.
- All exterior low voltage wiring for commercial HVAC equipment shall be installed in an approved raceway.
- 15 amp devices shall be supplied with number 14 AWG conductors and 20 amp devices with 12 AWG conductors.
- Conductors cannot be dependent on device connections such as lamp-holders, receptacles, etc. where removal would interrupt the continuity. Conductor shall be looped or have a pigtail wiring connection to the device.
- Conductors terminated at receptacles or switches are allowed only under the screw of the device per the manufacturer's directions.
- PVC shall not be permitted to emerge from concrete, earth, or other solid surface. Any portion of the raceway emerging from concrete or earth shall be installed in ridged metal conduit to a point not less than 18 inches above and below the emergence.
- EMT is not permitted in concrete, direct contact with earth, or used for exterior installations.
- Metal-Clad Cable Type MC cable is only to be used with lay-in type fixtures and recessed lighting fixtures in lengths not to exceed 6 feet of the total raceway.
- All unused wiring, including low voltage, is required to be removed back to the source of power or last utilized electrical device on the circuit.
- Service entrance conductors are to be installed in rigid metal conduit or intermediate metal conduit. PVC is allowed for underground use only and must be protected from any physical damage.
- Raceways installed in or under a slab or underground, with the exception of service entrance raceways, require a separate equipment grounding conductor.
- The service disconnecting means shall be installed in a readily accessible location at the utility meter or at a point not more than five feet from the utility meter.

- Where tandem, duplex, or similar overcurrent devices are use in a service panel, proof must be provided to the Code Official that circuits are properly balanced. Proof shall be provided in a written form using a panel schedule, by a registered or licensed electrician.
- The following materials and methods are not permitted:

Armored Cable Type AC.

Flat Cable Assemblies Type FC.

Flat Conductor Cable Type FCC.

Integrated Gas Spacer Cable Type IGS.

Medium Voltage Cable Type MV.

Nonmetallic Sheathed Cable.

Service Entrance Cable Types SE and USE.

Liquid Tight Flexible Nonmetallic Conduit.

Concealed Knob and Tubing Wiring.

Messenger Supported Wiring.

Open Wiring on Insulators.

Surface Nonmetallic Raceways.

Nonmetallic Extensions.

Electrical nonmetallic tubing.

Flexible Metal Conduit outdoors

Manufactured wiring systems in any concealed or outdoor locations.