



Community Development  
Department

## ELECTRICAL SERVICE REPLACEMENT

### Permit Procedure:

1. Submit a completed permit application.
2. Fill in the attached sheet with wire and conduit sizes.
3. All work to be done by a qualified electrical contractor licensed with the Village.
4. A final inspection is required. The electrician should be at the site for the inspection, if practical.

### Requirements:

1. All wiring must be insulated copper.
2. A supplemental 5/8" copper ground rod must be installed on the exterior.
3. The main ground must be of a sufficient size, grounded to the water service, street side. A bonding jumper must be installed around the water meter with an identification tag.
4. Minimum new service size 200 amps. Existing dwelling units under 1,500 square feet may be replaced with 100 amp service at the discretion of the authority having jurisdiction.
5. The service disconnecting means shall be located within five feet (5') of where the conduit enters the building. If such means is located over five feet from conduit entry, an outside disconnect must be provided.
6. All services must have the following specifications based on ampere:

SERVICE SPECIFICATIONS			
Ampere	Riser Size	Conductor Size	Ground Wire Size
150	1½"	1/0	6
200	2"	3/0	4

\* NEC= National Electrical Code (2011)

Revised 01/2014

## ABOVE GROUND INSTALLATION

Service heads shall be located above the point of attachment of service drop conductors (\* NEC-230.54(C)).

Service drop conductors (not in excess of 600 volts) shall have a minimum clearance of 10' feet from final grade (\* NEC-230.24(B)).

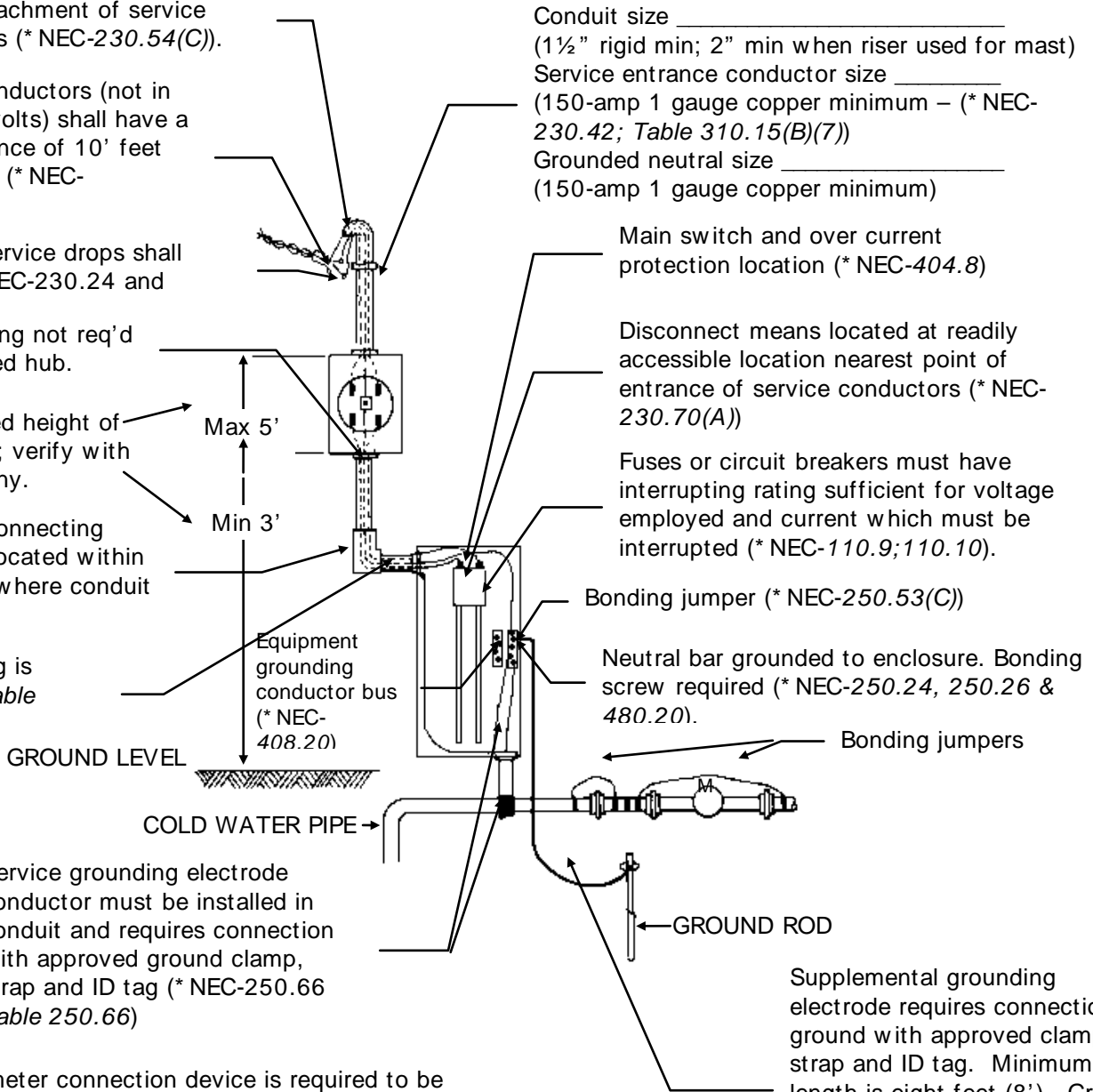
Clearances of service drops shall comply with \* NEC-230.24 and

Bonding-bushing not req'd here if threaded hub.

Recommended height of meter socket; verify with utility company.

The service disconnecting means shall be located within five feet (5') of where conduit enters building.

Grounding bushing is required (\* NEC-Table 250.92).



Conduit size \_\_\_\_\_  
 (1½" rigid min; 2" min when riser used for mast)  
 Service entrance conductor size \_\_\_\_\_  
 (150-amp 1 gauge copper minimum – (\* NEC-230.42; Table 310.15(B)(7))  
 Grounded neutral size \_\_\_\_\_  
 (150-amp 1 gauge copper minimum)

Main switch and over current protection location (\* NEC-404.8)

Disconnect means located at readily accessible location nearest point of entrance of service conductors (\* NEC-230.70(A))

Fuses or circuit breakers must have interrupting rating sufficient for voltage employed and current which must be interrupted (\* NEC-110.9; 110.10).

Bonding jumper (\* NEC-250.53(C))

Neutral bar grounded to enclosure. Bonding screw required (\* NEC-250.24, 250.26 & 480.20).

Bonding jumpers

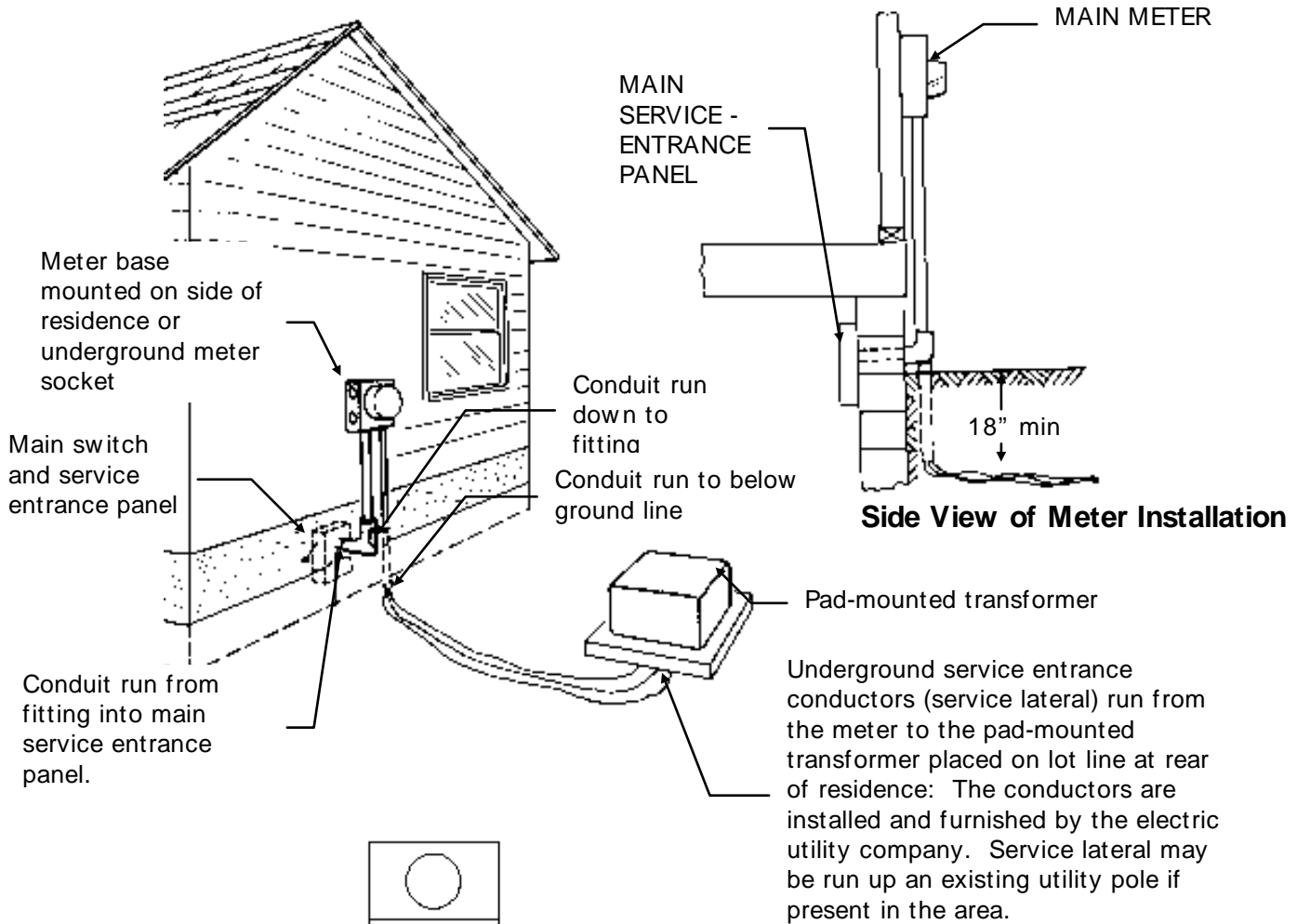
GROUND ROD

Service grounding electrode conductor must be installed in conduit and requires connection with approved ground clamp, strap and ID tag (\* NEC-250.66 Table 250.66)

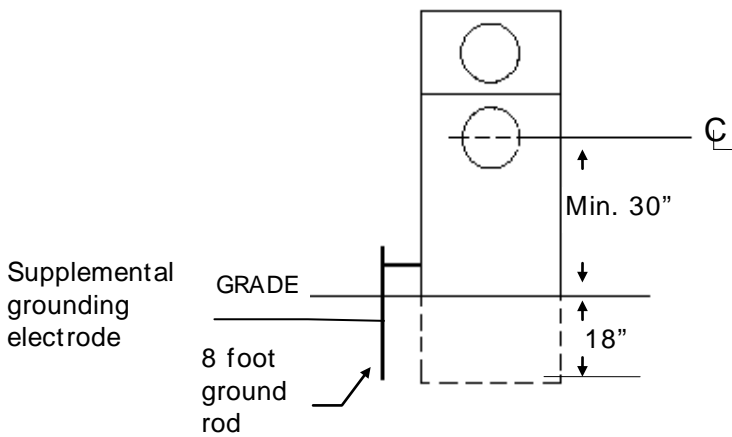
Supplemental grounding electrode requires connection to ground with approved clamp, strap and ID tag. Minimum length is eight feet (8'). Ground rod to be located on exterior of building below meter socket (\* NEC-250.53(D)(2) and 250.64(E)).

**Note:** New meter connection device is required to be installed and of a type approved by the utility company (6.27-ComEd).

## UNDERGROUND INSTALLATION



Underground service entrance conductors (service lateral) run from the meter to the pad-mounted transformer placed on lot line at rear of residence: The conductors are installed and furnished by the electric utility company. Service lateral may be run up an existing utility pole if present in the area.



**Single or Double Position  
with underground service**

**Conduit Size** \_\_\_\_\_

**Service Entrance  
Conductor Size** \_\_\_\_\_

**Ground Size** \_\_\_\_\_  
(1/2" conduit minimum)