

Replacement or Repair of Electrical Services/Older Homes

ALL GROUNDING AND BONDING WILL NEED TO BE IN PLACE

Prior to proceeding with the replacement of your electrical service contact OPPD's customer service department at (402)536-4155 to verify service location and point of connection.

Remember; this is a general layout of what the inspector will look at, based on the type of repair being done. All installations must meet National Electric Code (NEC), OPPD specs, and Omaha Municipal Code (OMC) Chapter 44 requirements for final inspection.

Working clearance in front of the meter socket and panel are required as listed in 110.26. Dedicated space is also required above and below the panel.

Service Repair – Any repair of an electrical service requires:

1. Installation of ground rod
2. Service pipe must be bonded
3. Service pipe must be sealed outside to inside.

Service Riser, Mast Repair or Underground (This involves unfused/unprotected conductors from the point of attachment of OPPD service line side of the meter socket.) When installing a new service, remember not to reuse the “roof plate or existing EMT conduit.” When replacing the service wires on the line side of the meter, the service must meet current codes.

1. All service wires must be in good repair and properly sized in accordance with NEC Article 310.15(B)(7) or they must be replaced.
2. Conduit must be properly installed and supported.
3. OMC Section 44-173b will be enforced. All service entrance conductors must be installed in an approved raceway. No SE cable allowed in service riser or from meter socket to panel.
4. A ground rod must be installed and connected (to the grounded conductor) at the meter socket or in the panel.
5. Check residential overhead service specs, OPPD sheets #6.08.1, 6.09 (Meter spec book)
6. Service pipe must be properly bonded.

Service Conductors Meter Socket to Panel (This involves the unfused/unprotected conductors from the load side of the meter socket to the panel or main breaker)

1. All service wires must be in good repair and properly sized in accordance with NEC Article 310.15(B)(7) or they must be replaced.
2. Conduit must be properly installed and supported.
3. Service pipe must be properly bonded.
4. OMC Section 44-173b will be enforced. All service entrance conductors must be installed in an approved raceway. No SE cable is allowed in service riser or from meter socket to panel.
5. OMC Section 44-172 will be enforced. The maximum distance between the service disconnect and the point where the conductors enter the building or structure shall not exceed ten (10) feet.
6. A ground rod must be installed and connected (to the grounded conductor) at the meter socket or in the panel.
7. Cold water pipe ground is required to be installed within five (5) feet of where the water enters the building. If the basement area is finished and a ground conductor cannot be installed to that location, then it must attach to the cold water pipe as close to where the water enters the building as possible.
8. If a fuse panel exists, fusestats and adapters must be installed.
9. Label all panel circuits.

Note: If, during the inspection, the inspector notices any potentially hazardous wiring in the existing panel, repairs must be made. Panel must be in good repair or the panel **must** be replaced.

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Replacement of Panel or New Service and Panel (When replacing or installing a panel, remember that panel clearance, dedicated space, and foreign systems rules do apply.)

1. Two (2) ground rods must be installed and connected (to the grounded conductor) at meter socket or in the panel.
2. Grounding electrode conductor termination is required to be installed within five (5) feet of where the water enters the building. If the basement area is finished and a grounding electrode conductor cannot be installed to that location, then it must attach to the cold water pipe as close to where the water enters the building as possible.
3. All exposed basement wiring must be covered or installed in conduit, including drops.
4. The furnace must be wired on a dedicated circuit.
5. Laundry outlet on a separate circuit (20 amp and properly grounded).
6. No tapping of existing “knob and tube” wiring to add more outlets.
7. If the basement is unfinished at least one GFCI outlet is required.
8. Panel illumination is required. Light source near panel.
9. Some older homes have remote fuse sockets (usually asbestos lined boxes) located in various areas of the house. These fuses must be removed and new circuit wiring installed back to the new panel.
10. Label all panel circuits.

Note: If, during the inspection, the inspector notices any potentially hazardous wiring in the process of his inspection, repairs must be made.