


RESIDENTIAL ELECTRICAL INSPECTION REQUIREMENTS

1. The trench can have no rocks or foreign material in the backfill. Bedding is required for each trench. There are two inspections. The first one will be for conduit depth. The conduit must be in the trench. There has to be 24 inches of cover from the top of the conduit to finish grade. The second inspection will be for 12 inches of bedding above the conduit and red electrical caution tape on top of the bedding. Bedding is defined as sand.
2. Conduit must be a minimum of 2 inches inside diameter for services of 150 Amps or less, and 2 1/2 inches inside diameter for 200 Amp services. Electrical PVC conduit is acceptable underground. Any conduit that is open to the air must be rigid or intermediate metallic conduit (IMC). Rigid and IMC that is underground must be wrapped with corrosion proof tape. Meter bases must be used as intended, modifications will not be accepted. Examples: modifying existing knock outs or the addition of knock outs.
3. On underground installations, the 90 degree elbow at the house must be rigid, and wrapped with corrosion proof tape.
4. In order for the permanent power to be connected, the main breaker panel cover must be in place on the meter base, secured as designed for the base being used. Also the outside cover must be in place over this cover with at least one screw in each corner. There must be a disconnect switch at the meter base.
5. The inside breaker panel must also be covered, with at least one screw in each corner of the cover.
6. A 500-pound test or greater pull line shall be left in the conduit with at least 6 feet of line extending from each end.
7. Ufer grounds are required. Ufer must be marked and identified in the garage. Mark the concrete with green paint to show the location of the Ufer ground. If residence plans do not include a garage, the connection must be within 5 feet of the meter base with outside access.
8. The water pipe bond must be made to metallic water pipes if present. The ground wire is required to be one run of wire with no splices, #6 wire or larger.
9. Ground rods must be 5/8 inch diameter, 8 feet long, copper clad steel. If 2 ground rods are used for grounding, they must maintain a minimum distance of at least 6 feet apart for the entire length of both rods. Separate #6 or larger ground wires must be used for each ground rod from the rod to the ground bus bar, with no splices.

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10. If a compression fitting is used to attach the conduit to the meter base, a bonding bushing and bonding jumper are required. The jumper must go to the customer side of the meter base, unless the base is designed to accept the jumper on the utility side, and utilize a hole in the ground bus of its own.
11. A 120 Volt GFCI must be in place somewhere in the house as required by the NEC. The most practical place to install it is in the laundry room or kitchen.
12. On underground installations, there must be a 90 degree elbow in the junction box with a riser that terminates a minimum of 3 inches above the dirt floor of the junction box and not closer than 10 inches from the bottom of the lid. If the edges of the opening of the conduit are sharp enough to skin the insulation of the wire being pulled, it must have a smooth bushing on it to protect the wire.
13. To prevent the riser pulling out of the meter base during settling of the ground, the conduit must be anchored to the foundation using unistrut, 3/8 inch bolts and anchors, and a unistrut clamp.
14. The location of the meter base shall be on the side of the house closest to the power source and no more than 10 feet from the front wall. Base must be located in from of any fence constructed on property to meet accessibility requirements. Contact dispatch at 489-2750 Ext. 10 if the power source needs to be located.
15. The height of the meter base shall be 6 feet, plus or minus 12 inches at the center of the meter opening.
16. On service changes, the old main breaker must be saved for the inspector. Where no increase in amperage is paid for, the same size service must be used.



**SPRINGVILLE CITY
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