

- pole ground with a conduit ground clamp. The remainder of the conduit may be PVC schedule 40.
- 9.610 All conduits shall be stood off pole a minimum of 1+5/8".
- 9.611 Customer shall provide a 5/8 x 10' copper clad ground rod at the pole if none exists.
- 9.612 Adequate secondary cable shall be installed to make connections to the City distribution system.
- 9.613 The contractor shall install a rigid galvanized steel or schedule 80 PVC meter box riser strapped to the wall installed 18" below grade with a plastic bushing (See figure 5).
- 9.614 A bonding bushing is required in the meter box.
- 9.615 The meter box shall be installed at a height of 5' to the center of the box from final grade at the location required by the City.
- 9.616 After the contractor installs all conduits, risers and underground secondary cable, City crews will make connections at the service pole, reinstall the meter and install a new meter seal. City crews will then remove the old aerial drop. There is no charge for this work if it is completed between 8:30 a.m. - 3:30 p.m. Monday through Friday, excluding holidays.

9.7 NOTES

- 9.71 Ringless meter sockets are required.
- 9.72 Use 4 jaw sockets for 120/240 volt 3 wire service.
- 9.73 Use 5 jaw sockets for 120/208 volt 3 wire service. (See figure 11).
- 9.74 The meter shall be accessible at all times and cannot be in an area that is enclosed.

10. METERS

- 10.01 The City will furnish the meter for electric service.
- 10.02 An authorized representative of the City shall have access to City owned equipment at all times.
- 10.03 Where practical, all meter locations shall be outdoors.

- 10.04 Meter boxes for direct self contained meters shall be supplied and installed by the customer. Direct self contained meter sizes are as follows: Up to 320 amp single phase and up to 200 amps three phase. All meter boxes shall be rigidly attached to building structure. (See figure 14).
- 10.05 The City will supply current transformers and the meter box for instrument rated services for installation by the customer. The customer shall supply an approved lockable 11" deep cabinet for installation of current transformers. The customer shall furnish a 1 1/4" rigid metallic conduit between the metering cabinet and the meter box or the padmounted transformer and the meter box if current transformers are installed in the transformer enclosure. The maximum length of the 1 1/4" conduit shall be 50'. Instrument rated metering installations shall have phase conductors broken and reconnected ahead of current transformers using Burndy-Unitap or NSI-Polaris connectors. The phase and neutral conductors shall have a 24" tapped #12 copper conductor to be used by the City for meter potential. **Meter box may not be installed on the transformer cabinet.** (See figure 16).
- 10.06 If practical all instrument rated metering installations shall be arranged so that the current transformers are installed on the source side of the service equipment. **Current transformers shall not be installed in customer owned switchgear.**
- 10.07 The customer will be required to pay for any primary metering costs. A high voltage group operated disconnect switch is required after the metering.
- 10.08 The meter box for new services shall be installed at a height of five (5) feet above grade to the center of the box. New residential meters shall be installed within five (5) feet of the front corner of the dwelling unless notified otherwise by a City representative. (See figure 5 and figure 14).
- 10.09 A minimum of three (3) feet of clear working space is required in front of all meters. (See figure 9).
- 10.10 The use of jumpers is **strictly forbidden.**
- 10.11 Meters shall not be installed on City poles unless approved.
- 10.12 Before work can begin for any new service or change of service, a City of Newark service and meter location form (See figure 1) shall be filed describing completely as possible the equipment to be served and the size of the load to be supplied so that adequate capacity may be provided.
- 10.13 Meter locations above the first floor are not approved.
- 10.14 All metering and disconnecting devices shall be grouped together for multi unit meter installations and arranged so that the service for each unit can be properly and independently controlled from a point readily accessible to both the customer

and the City. **Additionally, each meter or disconnect shall be permanently marked with the address served by that equipment. The interior of the meter box shall also be marked. Keys to rooms with multiple meters shall be supplied to the City.**

- 10.15 Gang type meter sockets are unacceptable for buildings not under common ownership.
- 10.16 Unauthorized removal of meter seals is prohibited except for emergencies. The City shall be contacted as soon as possible to have a new seal installed.
- 10.17 A disconnect ahead of all meters is required if more than six (6) meter locations exist for a single service.
- 10.18 The customer shall install a visible break, lockable disconnect switch ahead of any 200 amp or smaller 277/480 volt service.
- 10.19 Single phase 120/208 volt service is supplied in various locations in the City. Special metering with a 5th lug in the nine o'clock position is required for proper metering. Single phase 120/208 volt service is limited to 200 amp. (See figure 11).
- 10.20 For underground risers to meter boxes, only rigid steel or schedule 80 PVC conduit is approved. The riser shall be strapped to the wall.
- 10.21 Ringless meter sockets are required except for manufactured group meter installations, if ringless is not available.
- 10.22 Maintain a minimum of 24" between the meter and any gas piping.
- 10.23 Use 4 jaw sockets for 120/240 volt 3 wire service - 200 amp or smaller
Use 4 jaw sockets for 120/240 volt 3 wire service - 320 amp
Use 5 jaw sockets for 120/208 volt 3 wire service - 200 amp or smaller
Use 7 jaw sockets for 120/208 volt 4 wire service - 200 amp or smaller
Use 7 jaw sockets for 277/480 volt 4 wire service - 200 amp or smaller
Use 7 jaw sockets for 120/240 volt 4 wire service - 200 amp or smaller
- 10.24 For three phase 120/240 volt services, the power wire or high leg (the phase wire having the highest voltage to ground - 208 volts nominally) shall be located on the right side of the meter box and shall be identified by the color, orange. When parallel service conductors are run, conductors of the same phase shall be identified as such.