Use: Entrance requirements on a building.

SERVICE ENTRANCE
Underground

See SR-304, Page 1 and 2 for Meter Location

RISER NOTE:
Rigid Steel or IMC conduit must have a protective tape applied. The tape is to be installed starting 6" above final grade down beyond the (HDPE / Shur-Lock II or PVC) coupling joint. Use 10 mil. protection tape in a half lap installation.

Customer installed continuous conduit system per SR-205, SR-209, SR-207, and SR-312 to the Transformer, Pedestal, or Pole. Consult with the Design group about installation requirements.

Note: TEP designs exclusively with a customer provided and installed total conduit system.
SERVICE ENTRANCE

Underground

Use: Entrance requirements on stub poles supporting panel.

Optional location for 4" x 4" post if service is to be transferred to wall of permanent building. See Detail A Below.

Top View

Note 3

Note 4

Note 1

Note 5

Note 2

Note 8

Note 10

Final Grade

12" Min.

36" Min.

2.5" Schedule 40 Electrical PVC or HDPE.

4" Smooth - Cor® on 401 - 800A

Customer installed continuous conduit system per SR-205, SR-209, SR-207, and SR-312 to the Transformer, Pedestal, or Pole. Consult with the Design group about installation requirements.
1. If utilized, a meter board 10" x 22" x 3/4" or larger, treated for outdoor application, shall be fastened securely to the building wall, or other support, for mounting meter sockets, switches, and any other devices necessary for adequate metering and protection. Other mounting arrangements subject to the Company’s approval.

2. Where meter socket and switches are mounted on a meter board supported by two stub poles, such poles shall be a nominal 4" x 4", and treated to resist rot and weathering. The poles shall be set sufficiently deep to provide rigid support for installation of the meter and operation of the switch.

3. Meter and instrument transformers will be furnished by TEP or Service Provider. Meter sockets are to be purchased and installed by the customer per SR-400 Series.

4. The customer shall provide a service disconnecting device which meets all requirements of the current National Electrical Code. The operation of the device shall be such that the neutral (grounded conductor) is not broken when the device is opened. The operating handle or member shall be capable of being sealed either open or closed.

5. The service disconnect switch shall be effectively grounded in compliance with the applicable requirements of local governmental inspection codes, or National Electrical Code requirements in the absence of local codes.

6. All meter sockets shall be mounted between 3'-6" minimum and 6'-3" maximum from final grade to the center of the meter.

7. The service disconnect switch described in Note 4 above may be mounted beside and separate from the meter socket.

8. The service run from the meter socket down the building wall or mounting board shall be in rigid or intermediate steel conduit (2 1/2" for 0 - 400A, and 4" for 401 - 800A) with a 45° or 90° sweep into the service trench. The steel portion of the riser shall be 1' below the final grade. A threaded connection is required at both ends of the riser. All installations over 400A may require 2 - 4" diameter conduits (Smooth-Cor). The customer is required to install a protective tape to the riser starting 6" above the final grade, then down beyond the (HDPE or PVC) coupling joint. The tape shall overlap the coupling joint by 2".

Single-phase service to individual residential or commercial customers, (SR-310, Pg.1) will normally be furnished using TEP's underground cable. The customer will be required to furnish and install a continuous conduit system sized for the service entrance amperage. When total service switch capacity on existing buildings is increased beyond the capability of existing service cable sized to handle the initial switch capacity, the customer will be responsible for the cost of any trenching and duct installation which may be required to enable TEP to adequately serve the increased load.
USE: Entrance requirements on a building.

**SERVICE ENTRANCE UNDERGROUND**

(8. continued) Single-phase service cable to apartment buildings and townhouse complexes shall be sized based on the estimated demand load. If this demand is expected to exceed the ampacity of a 2 1/2" conduit, then a 4" continuous conduit system (or 2 - 4") must be installed by the customer. For riser requirements at a pole, see SR-308-A / SR-220.

All continuous conduit runs regardless of size, are to have a 45° or 90° sweep with a 36" radius at service riser, and a 90° sweep with a 36" radius at pad-mount transformer, pedestal, or pole riser. The total of all deflections within the conduit run are not to exceed 270° (See Note 14 for exceptions). Refer to SR-205 for conduit requirements.

9. The service trench shall be per the TEP Service Requirement SR-312. Random lay with other utilities is acceptable with the exception of sewer. Water and gas lines shall maintain a 1' separation (horizontal or vertical / horizontal) other than directly above the electric facility (see SR-312 pg. 1). Other utilities are not permitted to pass underneath any TEP equipment.

10. Riser to be plumb and securely fastened to the wall or pole in such manner as to not allow movement of the riser when subjected to stresses which may be applied when installing or removing electric service conductor. Riser shall be anchored to a stud for frame stucco construction. Contact the Design Department if building structure is not similar to SR-310, Page 1.

11. Align centerline of riser with the centerline of service trench. Do not aim end of riser into side of service trench. For installations using 2-1/2" conduit with 45° X 36" sweep, position the lower end of riser 12" below the final grade then transition to a Schedule 40 PVC 45° X 36" sweep and coupler or HDPE conduit with Shur-Lock II connector.

12. Trench depth to be 36" when installing a continuous duct system. The sweep is to be a 36" radius X 45° or 90° sweep.

13. 2 1/2" DB-120 PVC electrical conduit may be used in straight runs in service installations when the meter location is on the same side as the utility source (see SR-304 pg. 2. The sweeps and connectors shall be Schedule 40 PVC, no greater than 270° of bends within the conduit run. The maximum service length is 250'.

14. When cross-trenching (opposite quadrant See SR-304 pg. 2 of 2), 360° of deflections are permitted within a service run. The underground service length is to be 100' or less, and using Schedule 40 PVC, Wave Rib or Dura Line conduit (No DB-120 PVC allowed). The meter will be located in front of any wall or fence.

15. Underground supply cable should not be installed within 5 feet horizontally of an above ground or in-ground swimming pool or its auxiliary equipment. Swimming pools will not be installed over electrical utility cables.