

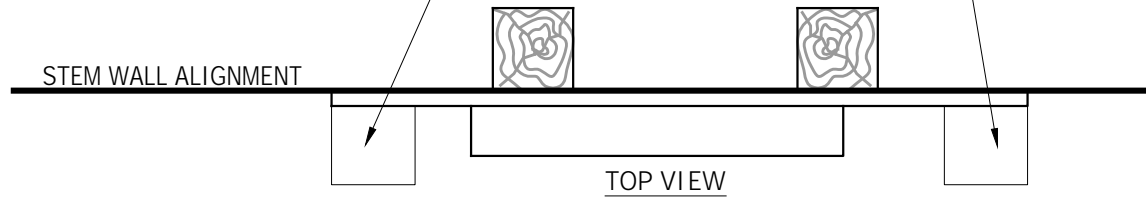


USE: ENTRANCE REQUIREMENT  
ON STUB POLES  
SUPPORTING PANEL

## SERVICE ENTRANCE UNDERGROUND



OPTIONAL LOCATION FOR 4" X 4" POST IF SERVICE IS TO  
BE TRANSFERRED TO WALL OF PERMANENT BUILDING.  
SEE DETAIL A BELOW



NOTE 3

NOTE 4

NOTE 1

3'-6" MIN., 6'-3" MAX.

NOTE 2

NOTE 8

NOTE 5

NOTE 10

FINAL GRADE

DETAIL FOR  
OPTIONAL 4" X 4"  
POST LOCATION

NOTE 11

NOTE 13

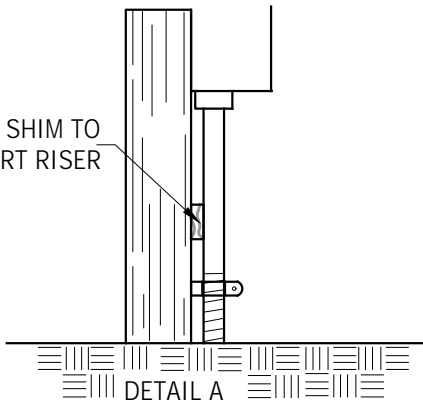
WOOD SHIM TO  
SUPPORT RISER

NOTE 12

BOTTOM OF TRENCH

12" MIN.

36" MIN.



CUSTOMER INSTALLED CONTINUOUS CONDUIT SYSTEM PER SR-205,  
SR-209, SR-207, & SR-312 TO THE TRANSFORMER, PEDESTAL, OR POLE.  
CONSULT WITH THE DESIGN SERVICES TO VERIFY REQUIREMENTS.

2 1/2" SCHEDULE 40 ELECTRICAL PVC OR HDPE OR  
4" SCHEDULE 40 ELECTRICAL PVC FOR 401-800A,  
REQUIRED FOR SERVICE DUCT RUNS.



Tucson Electric Power



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SR-310



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1. If utilized, a meter board 10 inch x 22 inch x 3/4 inch 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 inch x 4 inch, 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 Service Provider. Meter sockets are to be purchased and installed by the customer per the SR-400 Section.
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 current 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 (RMC or IMC), conduit shall be 2 1/2 inch for 0-400A, and 4 inch for 401-800A, with a 45 degree or 90 degree sweep into the service trench. The steel portion of the riser shall be 1 foot below the final grade. A threaded connection is required at both ends of the riser. All installations over 400A may require two 4 inch diameter PVC Schedule 40 electrical grade conduits. The customer is required to install a protective tape to the riser starting 6 inch above the final grade, then down beyond the HDPE or PVC coupling joint. The tape shall overlap the coupling joint by a minimum of 2 inches.



Single-phase service to individual residential or commercial customers, refer to SR-310, Page 1, will normally be furnished using the Company'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 the Service Provide to adequately serve the increased load.

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 inch conduit, then a 4 inch or two 4 inch continuous conduit system must be installed by the customer. For riser requirements at a pole, refer to SR-308A and SR-220.

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



9. The service trench shall be per the Company's Service Requirement SR-312. Random lay with other utilities is acceptable with the exception of sewer. Water and gas lines shall maintain a 1 foot separation either horizontal or vertical/horizontal, other than directly above the electric facility, refer to SR-312, Page 1. Other utilities are not permitted to pass underneath any Company 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 Design Services 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 inch conduit with 45 degree x 36 inch sweep, position the lower end of riser 12 inches below the final grade then transition to a Schedule 40 PVC 45 degree x 36 inch sweep and coupler or HDPE conduit with Shur-Lock II connector.
12. Trench depth to be 36 inches when installing a continuous duct system. The sweep is to be a 36 inch radius x 45 degree or 90 degree sweep.
13. 2 1/2 inch 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, refer to SR-304, Page 2. The sweeps and connectors shall be Schedule 40 PVC, no greater than 270 degrees of bend within the conduit run. The maximum service length is 250 feet.
14. When cross-trenching (opposite quadrant) refer to SR-304, Page 2., 360 degree of deflections are permitted within a service run. The underground service length is to be 100 feet or less, and using Schedule 40 PVC, Wave Rib or Dura Line conduit, no DB-120 PVC is 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.
-  16. A new service entrance shall be installed to provide a minimum of 3 feet clearance to gas meter regulator or regulator extension vent. For clearance guidance when electric service entrance is being relocated or upgraded, refer to SR-910.

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