Provide the minimum vertical clearances above based on the final unloaded sag at 176 degrees F as listed in DO-3.270.N5. Add the blowout displacement listed in DO-3.302 to meet the horizontal and directional clearances above.

REFERENCES:

- 1. NESC 234E1(Table 234-3), 351C1.
- 2. NEC 680-8.
- 3. Refer to DU-4.222/ESR for Clearances to Other Equipment, Buildings and Swimming Pools.
- 4. Refer to DO-3.314 for Vertical Clearance to Ground & Roadway.
- 5. Refer to DO-3.270 for Final Vertical Sag 176 Degrees F.
- 6. Refer to DO-3.302 for Blowout.
- 7. Refer to DO-3.330 Clearances to Buildings and Appurtenances.

AVISTA Utilities Distribution Standards DO-3.338 ESR

2.3 UNDERGROUND SERVICES

2.3.1 Point of Delivery

There shall be no conduit bodies or junction boxes (condulets, LBs, etc.) upstream of the Avista-owned meter equipment.

Self-Contained Meters

Avista will terminate utility service conductors in the customer supplied meter socket.

Current Transformer (CT) Meters

Avista will terminate utility service conductors on the utility side of the point of interconnection. Customer to provide mounting brackets and landing lugs.

Self-Contained Meter Modules

2 – 6 Units:

Avista will terminate utility service conductors on the bus of a 2 to 6 meter modules.

More than 6 Units:

Avista will terminate utility service conductors at the main disconnect feeding several multiple meter modules.

Switch Gear

Avista will terminate in the termination/pull section of switch gear located outside. Termination of Avista secondary wire in switch gear located in buildings will no longer be allowed. Customer will be required to furnish outside Switch gear when the ampere rating exceeds 1200 amps on non-dedicated transformer services. An option in this case is for the customer to install, own and maintain service conductors from the building to Avista transformer. Switch gear shall meet EUSERC requirements with manufacturing drawings to be preapproved by Avista. See additional information in the Meter Requirements **Section 4.4.7**.



2.3.2 Service Ditch

The ditch route, width and the need for sand padding and bedding must be pre-approved by the Avista Customer Project Coordinator.

All ditching must be inspected and approved by Avista personnel prior to backfilling and crew scheduling. Conductor will not be energized until the ditch has been fully backfilled. All ditches must be in accordance with Avista design requirements. Truck access is desirable. Time and material charges may result from additional trips necessary for energizing or correction of facilities.

Customer is responsible for backfilling and returning landscape back to required condition, haul-off, and all compaction requirements, including select backfill if required. Customer is also responsible for obtaining all required permits.

State law requires all excavators to notify "One-Call" 48 hours in advance so that all utilities may locate and mark buried facilities before trenching begins. The law requires that the ditch be hand-dug within 2 feet of a locate mark. Extreme caution should be used. All hand-digging must be completed prior to inspection by Avista.

Customer dug ditches shall end no closer than 2 feet to an in service, energized padmount transformer or junction enclosure and or no closer than 6 inches to an in service, energized secondary handhole or pedistal. Allow more distance if soil conditions cause ditch to cave in. Extreme caution should be used. The conduit must be installed to the end of the ditch and the sweep left unattached for Avista crews to complete.

Ditches for service from an overhead facility shall be dug from the base of the pole to a point designated by the Avista Customer Project Coordinator.

Ditch must be in relation to final grade within 2"- 4", including all drainage areas.



CALL BEFORE YOU DIG



2.3.3 Service Ditch Detail



PREFERRED

Figure 18- Service Ditch Detail

NOTES:

- 1. Gas service pipe and electric conduit should not be run in the water ditch. Avista requires 5' separation between water mains and electric cable. Refer to DU-1.410.
- 2. Bedding and padding for services in conduit shall be classified as select backfill. Select backfill is clean, screened material consisting of 3/4" minus rock and sand free of rubbish, cinders, chemical refuse or other materials that could cause damage to the conduit.
- 3. All customer ditches must pass Avista Utilities inspection.
- 4. Approved backfill shall not contain any rock larger than 4 inches.
- 5. Electric and communication cables may be installed with less than 12 inches separation when the general joint use requirements and the requirements of this standard are met. All parties with less than 12 inches separation must agree to random lay. Refer to DU-1.420.
- 6. All cables must have at least 12 inches radial separation from URD structures such as natural gas lines, fuel lines, building foundations, other cables not in random lay, etc.
- 7. Gas services should be installed with a 5' minimum longitudinal separation from sewer utility pipelines or storm drains or at further distances as specified by the appropriate regulating agency.

REFERENCES: (Contact Avista)

- 1. NESC Section 35.
- 2. Refer to DU-1.410 for Joint Use General Requirements
- 3. Refer to DU-1.420 for Joint Use Random Lay.
- 4. Refer to DU-7.450 for Service Cable Ditch.
- 5. Refer to Gas Standard Trenching and Backfilling 3.15.
- 6. Refer to Electric Service and Meter Requirements.

AVISTA Utilities Distribution Standards DU-1.430/DU-7.450 ESR

2.3.4 Clearance to Transformers



Figure 89- Clearance to Transformers

