

RESIDENTIAL

YOUR PLANNING PACKET INCLUDES:

- Important Information
- Call Before You Dig
- Site Plan
- Application for Service
- Meter Location
- Underground Service Information (Green)
- Overhead Service Information (Pink)
- Temporary Service Information (Blue)

Important Information – Please Read

This packet is intended to detail service requirements. Please note that an additional line extension may be required depending on the distance from existing District facilities.

At Benton PUD, our goal is to provide our customers with the best possible service. With that goal in mind, we have prepared the following information for you so that we can work efficiently with you to meet your electrical needs. Please take a few moments to read this information, then **completely fill out** the enclosed application for service.

Thank You!

How We Prepare Your Work Order

One of our Field Engineers will visit the installation site, design the necessary facilities and prepare a work order for materials and construction. If you would like to meet with the engineer to discuss your project, please contact the engineering department at (509) 582-1230.

Please note that we may need to assess fees, or have you sign an easement agreement prior to construction. If either of these requirements is necessary, a Benton PUD representative will contact you with details.

What Permits You Will Need

State and local governments require that you obtain the following permits and notify us when your new service has been approved before we can connect your service.

- State Electrical Permit – Department of Labor & Industries (509) 735-0138

What You Must Do To Prepare Your Site

To avoid unnecessary delays in completing your service installation, we ask that you prepare the site prior to arrival of our line team. This preparation should include:

- Providing necessary trench and conduit when applicable (specifications will be sent with design packet)
- Providing clear access to the site
- Identifying all property lines
- Establishing the grade of the site

When Construction Will Begin

Once all the necessary fees or signed easement agreements have been received by Benton PUD, it takes 7 – 10 days from the time we receive notification that your new service has been approved by the Department of Labor & Industries to connect your new service. We will make every effort to expedite your request. However, there are a number of factors influencing the process, including weather, site preparation, and the availability of manpower and materials.



Call Before You Dig

811

IT COULD SAVE YOUR LIFE!

Many things lie buried beneath the ground. Power lines and gas lines are two of the most deadly.

IT COULD SAVE YOUR PROPERTY!

Fire or explosion from a damaged gas line, erosion from a broken water line, disease from a broken sewer line, or simply the inconvenience of losing your phone or cable TV service due to a cut line.

IT COULD SAVE YOU MONEY!

It doesn't cost anything to call in a locate request. With one quick telephone call, all utilities in your area will be notified to come and mark the location of their lines. However, if you damage a utility line and did NOT call for a locate, you may be liable for up to **three times** the actual amount of the damage. Some high-capacity telephone lines carry up to **one million dollars per minute** in calls!

IT'S THE LAW!

According to [RCW 19.122](#), anyone digging deeper than twelve inches must call for locates two business days before they dig. This holds true for private property, city, county, state or federal lands, and railroad right-of-way. In addition to damages and civil penalties, anyone who ignores this law may also be subject to penalties from the Department of Labor and Industries.

Remember to call two business days before you dig

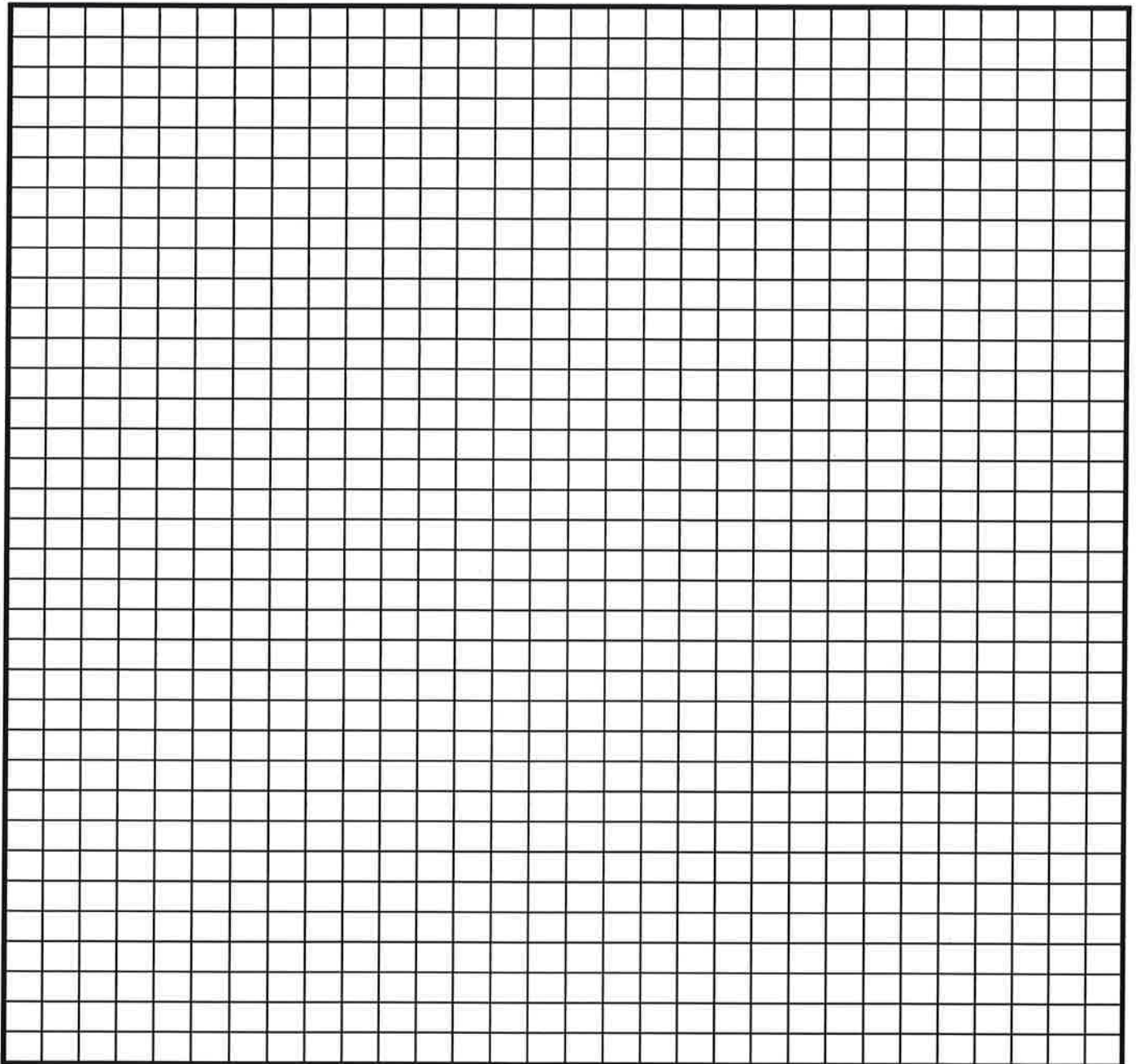


Site Plan



Please indicate North

Please draw a sketch of your property in the grid below. Show the house location, driveway(s), meter base location for temporary and permanent power, sewer lines, water lines, drain fields, and the location of other utilities (indicate depth, if applicable). Please show distances from property corners, the nearest cross roads, and include a scale. ***In lieu of sketching your property, you may attach a site plan from your architect or builder.***





APPLICATION FOR SERVICE

Please e-mail completed applications to:

EngService@bentonpud.org

or you may fax-509/586-6876

UMT#

SO #

NEW SERVICE LOCATION INFORMATION:

CUSTOMER NAME: Last: _____ First: _____ MI. _____

-or- BUSINESS NAME: _____

SERVICE ADDRESS: _____ CITY: _____ State: _____ Zip: _____

SUBDIVISION/PLAT: _____ LOT: _____ BLOCK: _____ TAX ID# _____

HAVE YOU EVER HAD SERVICE WITH BENTON PUD? ☐ YES ☐ NO PHONE NUMBER: () _____

BILLING AND ACCOUNT INFORMATION:

BILLING NAME: _____ ☐ SSN# Benton PUD will contact you to obtain your SSN or other proof of identity ☐ UBI# _____

PHONE: HOME: () _____ WORK: () _____

MAILING ADDRESS: _____ City: _____ State: _____ Zip: _____

CO-APPLICANT: _____ ☐ SSN# Benton PUD will contact you to obtain your SSN or other proof of identity ☐ UBI# _____

PHONE: HOME: () _____ Email Address: _____

CONTACT INFORMATION:

GENERAL CONTRACTOR: _____ PHONE NUMBER: () _____

ELECTRICIAN: _____ PHONE NUMBER: () _____

SERVICE INFORMATION:

TYPE OF SERVICE: ☐ OVERHEAD ☐ UNDERGROUND ☐ RESIDENTIAL ☐ COMMERCIAL
☐ NEW SERVICE ☐ ALTERED SERVICE ☐ IRRIGATION ☐ SECURITY LIGHT

TEMPORARY SERVICE: ☐ UNMETERED ☐ METERED

If temporary service, is pole installed and ready for inspection? ☐ Y ☐ N (Will Call)

If underground service, is Trench Open & Ready for Inspection? ☐ Y ☐ N (Will Call)

LOAD INFORMATION:

☐ HOUSE ☐ DUPLEX ☐ APARTMENT ☐ MFG. HOME ☐ SHOP ☐ COMMERCIAL _____ SQ. FEET

SERVICE SIZE: ☐ 200 AMP ☐ 320 AMP ☐ OTHER _____ AMPS

TYPE OF HEAT:

HEAT PUMP _____ TON _____ BACK-UP (KW SIZE OR GAS) ELECTRIC FURNACE _____ KW

OTHER ELECTRIC HEAT _____ TOTAL KW ☐ GAS ☐ OIL ☐ OTHER ☐ NO HEAT

ADDITIONAL LOADS:

AIR CONDITIONING _____ TON PUMP SIZE _____ HP WATER HEATER: ☐ ELEC. ☐ GAS

HOT TUB _____ KW SAUNA _____ KW POOL _____ KW

ADDITIONAL INFORMATION:

☐ DOG LIFE SUPPORT EQUIP. PLEASE SPECIFY: ☐ CRITICAL ☐ NON-CRITICAL

SIGNATURE _____

DATE _____

Meter Location

It is in the best interest of both the customer and the District that a suitable and adequately protected meter location be provided to assure accuracy of meter readings, to facilitate installation and maintenance without undue inconvenience to the customer and/or to District employees.

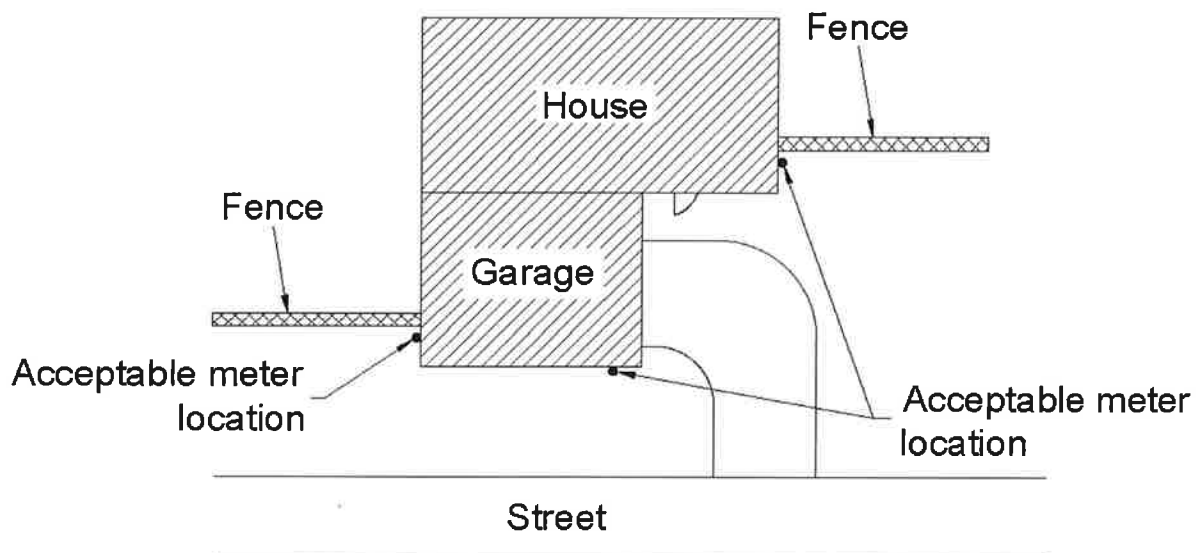
The meter base and conduit must be located on an outside structure wall so that it will be readily accessible to Benton PUD employees. Meters cannot be covered or enclosed in any manner.

Residential meters must be installed at a location that is readily accessible to District employees. The meter should be located on the front of the structure, or within the front 4' of the side of the structure. All porches, patios, decks, exterior bedrooms or bathroom walls should be avoided due to the likelihood of being fenced in.

On multiple meter installations, the customer or contractor shall plainly and permanently mark meter bases, service disconnecting devices or cabinets with numbers or letters (purchased from the Benton PUD warehouse) corresponding to the residence or facility which the disconnecting devices serve. All such identification and the feeder conductors must be installed before the District will set its meters. A site plan must be provided showing proposed meter locations.

Any exceptions to these guidelines require written approval from the District Engineering Department prior to installation.

Example of typical installation:





Residential Underground Electrical Services

The Items to Be Completed Are:

- ☐ Contact the Benton PUD Engineering Department and request new permanent service at (509) 582-1230.
- ☐ Arrange payment of service and/or line extension fee
- ☐ Obtain underground locates and provide a trench to the nearest Benton PUD contact point. **Call the Utilities Underground Location Center at 1-800-424-5555 at least 48 hours in advance before you do any digging.**
- ☐ Install your new meter base.
- ☐ Provide trenching as required.
- ☐ Install service conduit as required.
- ☐ Call Benton PUD for a trench inspection at (509) 582-1230, (Prosser area customers can call (509) 786-1841).
- ☐ Obtain an electrical work permit and electrical inspection from the Department of Labor and Industries. (509) 735-0138.
- ☐ Call Benton PUD and inform them that your new service has been inspected by the Department of Labor and Industries.

Conformance

Each installation is subject to review and inspection by Benton PUD for conformance to these specifications. All installations require an on-site inspection of the trench by Benton PUD. Contact our office for an appointment (509) 582-1230.

If a problem is detected with the conduit's location, depth, type, installation, or it is not ready, the cable **WILL NOT BE INSTALLED** and the builder will be charged \$75.00. The builder will be notified of the problem and be required to correct it. When the corrections have been made, the builder will notify Benton PUD and another inspection will be scheduled.

Specifications

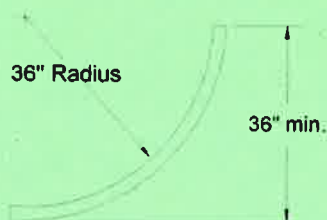
The conduit system must meet the following

specifications to ensure that the cable can be installed and voltage drop requirements will be met without requiring an engineering review.

Note: Deviations from the specifications may be allowed. For each project a Benton PUD Field Engineer must review the proposed deviations and give approval in advance.

- ☐ **Meter Base.** 200 or 320 amp self-contained type only. The required location is on the front of the house or structure, or within the front 4 feet on either side of the house. The front is the side of the structure facing the road or driveway serving the structure.
- ☐ **Conduit, Bends, and Couplings, etc.** UL listed, gray colored, 3" Schedule 40 PVC.

Use only manufactured 36" radius bends.
Do not form your own bends!



- ❑ **Maximum Horizontal Length.** For a 200 amp service, up to 200' of wire from a District transformer. For a 320 amp service, up to 250' of wire from a District transformer. If the length is going to be longer, builder will need to contact a Benton PUD Field Engineer prior to installation.
- ❑ **Maximum Horizontal Bends.** 90°
Example: 2-45° bends, or 1-90° bend (plus the vertical bend up to the meter and another at Benton PUD's equipment for a total of 270°)
- ❑ **Depth.** 30" minimum below finished grade except as required at the meter.
- ❑ **Conduit Assembly.** All joints must be completely seated and permanently glued with PVC cement. Keep dirt and debris out of the conduit run. When cutting PVC, make cuts square and remove any burrs from the inside and outside edges. Pull string not required
- ❑ **Backfill.** Backfill the trench with the material shown.

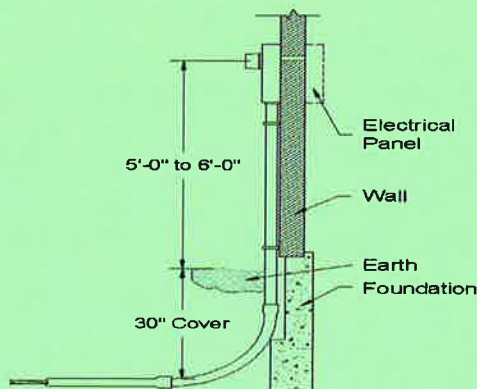


- ❑ **Compaction.** Compacting the trench is the builder's responsibility. The homeowner will be responsible for any future trench settling.
 - ◆ Only hand tamping is permitted within 6" of the conduit.
 - ◆ Compact the main trench area as necessary to prevent settling, especially near the meter base, since settling here will likely cause damage to the meter base and conduit.
- ❑ **Open Trenches.** Any open trench must be adequately barricaded or protected to ensure public safety as required by local, state, or federal rules or regulations. Keep open trenches to a minimum amount of time.
- ❑ **Separation from Other Facilities.** A 12" horizontal or vertical separation is required between the electrical conduit and any other utility facilities or structures.

Meter Base Placement

The meter base and any conduit not owned by Benton PUD must be located on the outside of an outside structure wall so that it will be readily accessible to Benton PUD. Exceptions must be approved in advance by Benton PUD.

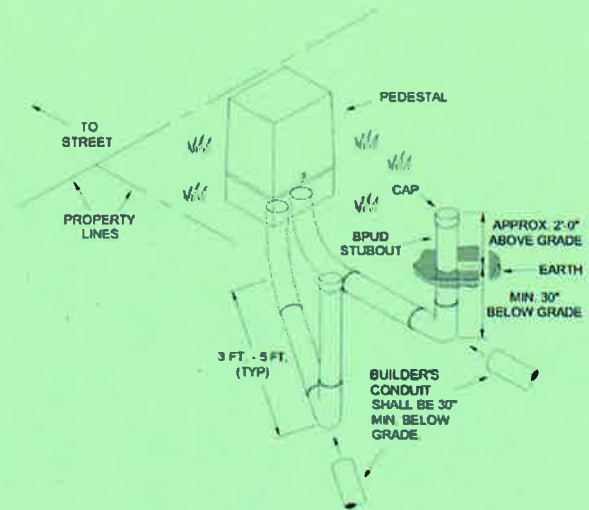
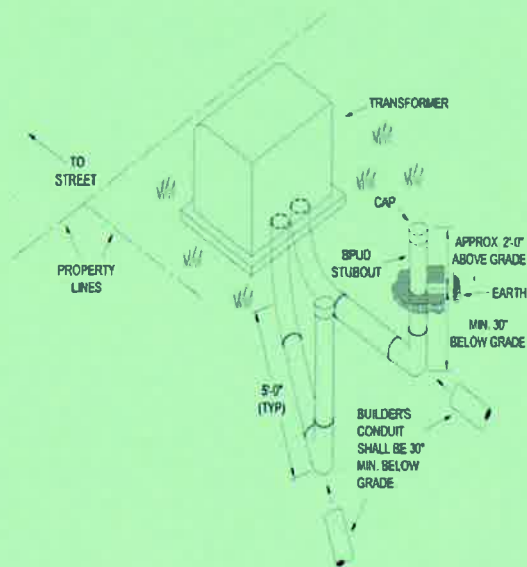
The center of the meter must be 5'-0" – 6'-0" above the finished grade. Meters installed on a pedestal require a minimum height of 3'-6". See meter location insert.



Transformers and Pedestals

Most transformers and pedestals have 3" conduit stubs marked as shown.

- ◆ Excavate and expose the end of the stub and connect the new 3" conduit.
- ◆ Contact a Benton PUD Field Engineer if the stub cannot be found.



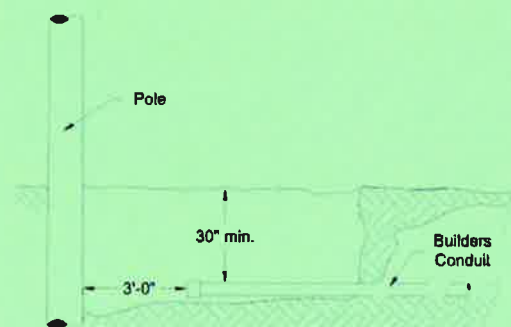
Poles

Power poles do not have conduit stubs.

- ◆ Meet with a Benton PUD Field Engineer to determine an acceptable conduit route prior to digging the trench.
- ◆ Trench to within 3' of the base of the pole.
- ◆ Install the conduit to a point 3' from the pole.
- ◆ Plug or cap the end of the conduit to keep out dirt and debris.

Leave the last few feet of trench open so that our line crews can install the final 90° bend, the last 3' of the trench, and pole riser. The rest of the trench can be backfilled after the cable is installed.

Note: If there is a pedestal at the base of the pole, plumb the conduit as shown for pedestals.



Transformers without Conduit Stubs.

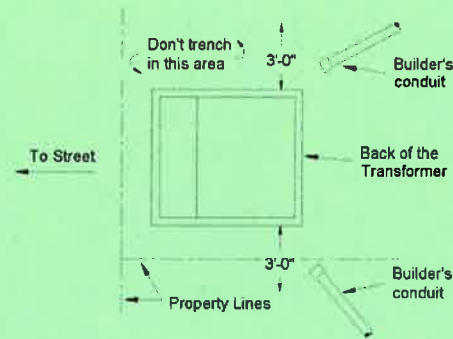
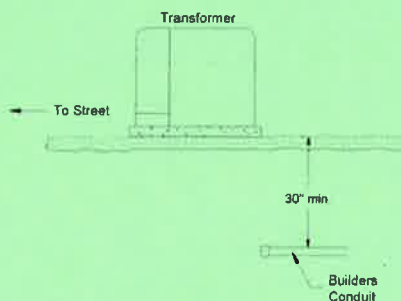
If the transformer does not have a conduit stub, meet with a Benton PUD Field Engineer to determine whether a stub exists. If there is no conduit stub:

- ◆ Trench to within 3' of the transformer.
- ◆ Install the conduit as shown, aiming at the center of the nearest side of the transformer. Don't trench under the transformer or within the area shown.

Note: Do not stub the conduit into the back of the transformer.

- ◆ Cap or plug the conduit to keep out dirt and debris.
- ◆ Backfill the trench and either:
 1. Leave the capped end of the conduit exposed, barricading the open trench as necessary, or
 2. Leave the trench open near the transformer 5'.

Benton PUD will install the final 90° bend and backfill the remaining trench when the cable is installed.



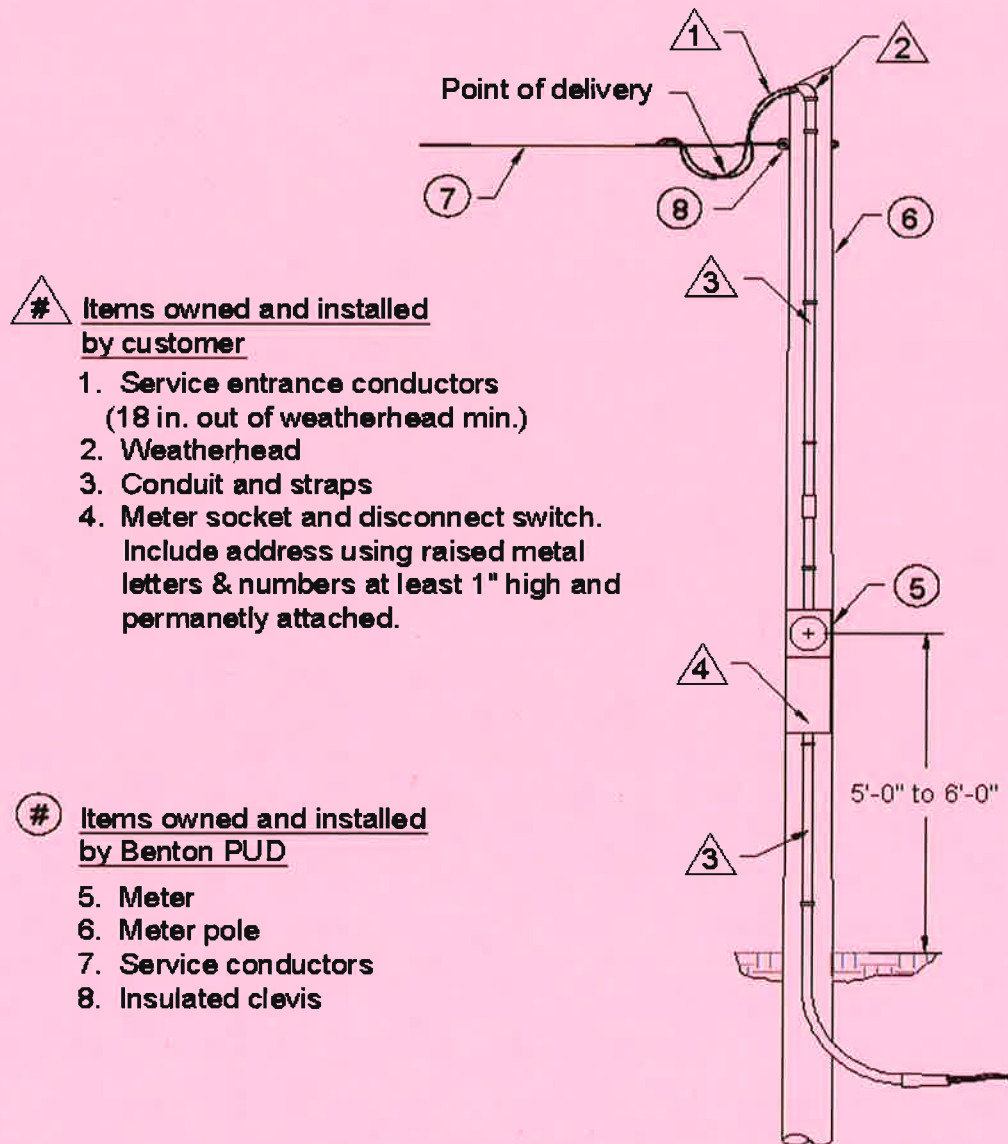
If you plan on doing ANY digging within two feet (2') of any survey monument or property corner, you are required to comply with WAC 332-120. This includes both monuments or property pins you can see and any expected monuments or property pins.

Prior to any excavation, an application must be filed with DNR. You will need to contact a licensed land surveyor to meet this requirement.



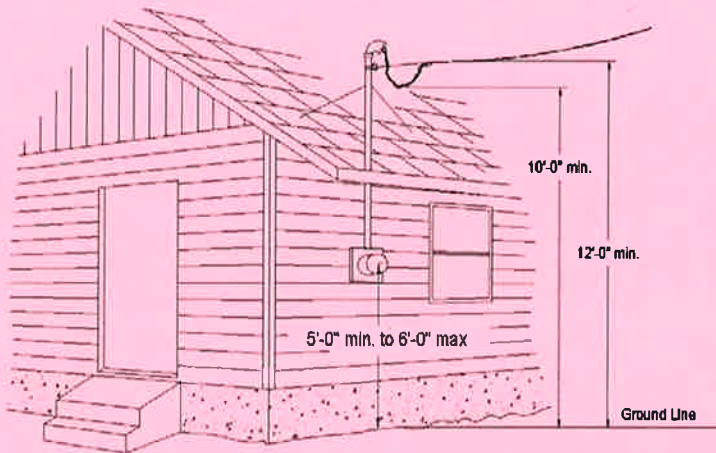
Residential Overhead Electrical Services

Self-Contained Single Phase Overhead Residential Service



- The line side of the service must be connected to the line lugs of the meter base.
- For pre-manufactured homes, the main breakers must be within 30' of the exterior wall of the home.

Single Phase Self-Contained Metering From An Overhead System



The mast used for attachment of the service drop must be a minimum of a 2-inch rigid steel galvanized conduit, with a suitable attachment to the building to support the weight of the service conductors. Determination of mast height should be made according to applicable service conductor clearances first, then a determination can be made whether mast height will require guying.

A guy is not required on service masts 26 inches or less above the roof when the service conductor is #1/0 triplex or smaller, and less than 100 feet long. All other service masts

require guying. Stiff leg guying (not shown) is an acceptable alternative. The service conductor attachment must be a minimum of 18 inches and a maximum of 60" above the roof.

Service entrance conductors are to be installed by the customer and should be sized according to the latest issue of the NEC, and per the electrical rating of the meter base. The service entrance conductors should extend a minimum of 18 inches from the end of the weatherhead to permit the attachment of the service conductor by Benton PUD.

Any questions regarding service entrance equipment should be referred to the Department of Labor and Industries, or the State Electrical Inspector for that particular area.

Clearance Requirements

Service conductors should be attached a minimum of 12 feet and a maximum of 25 feet above final grade. The bottom of the drip loop must be a minimum of 10 feet above final grade. These requirements were obtained from the most recent edition of the National Electric Safety Code (NESC).

Clearances above Roofs

Service conductors must have a vertical clearance of at least 8 feet from all accessible roofs above which they pass. Please contact a Field Engineer for answers to questions in this area.

Exception 1: Where the voltage between conductors does not exceed 300 volts, and the roof has a minimum slope of 4 inches to 12 inches, clearance of 3 feet is permitted.

Exception 2: Where the voltage between conductors does not exceed 300 volts, a minimum clearance of 18 inches above only the overhanging portion of the roof is permitted if (1) no more than 4 feet of service conductors pass above the roof over hang, and (2) they are terminated at a through-the-roof raceway or approved support.

Clearances from Building Openings

Allow a minimum of 3 feet of clearance between service conductors and windows, doors, porches, fire escapes, or similar locations. Service conductors above a window are considered clear of that window.



Temporary Services

Benton PUD offers two types of temporary services. **Unmetered temporary services** are intended for incidental power requirements related to construction (saws, compressors, painting equipment, etc.) Unmetered temporary services **are not** available for commercial projects. If you intend to power heating systems, area lighting, construction shacks or recreational vehicles from your temporary service, install a **metered temporary**.

In some instances, you may need temporary service prior to the installation of equipment that will provide the permanent service. The cost of installing and removing transformers and/or primary wire for the sole purpose of providing temporary service is to be paid by the customer.

There are two installations for temporary services: overhead and underground. Both are available as unmetered or metered services. If the power system in your area is a series of poles, you are in an area served overhead, and you will need to install an overhead temporary. If your area is served underground, you will need to install an underground temporary.

Before we can do any work on your temporary service, you must request the service, pay the applicable fees, and receive an inspection from the Department of Labor & Industries. The present fee for an unmetered temporary service is \$200.00, which includes energy for 120 days. At the end of 120 days, the temporary service will be automatically disconnected unless a request has been made for an additional 120 days. Each 120 days thereafter requires another request and a \$125.00 renewal fee. The fee for a metered temporary service is \$125.00 plus monthly account and energy charges, and is good for a period of one year.

Overhead Temporary Service

Your overhead temporary service post should be located on your property within 50 feet of the Benton PUD pole that will serve you. When a distance greater than 50 feet is required, please contact our Engineering Department and discuss your problem with a Field Engineer for approval. In addition to the distance limitation, please consider the following:

- The path that the service line will take should not cross property belonging to other individuals.
- The path that the service line will take must not be within 4 feet of the telephone or cable TV wires.
- If the service line will pass through trees or brush, a path for it must be cleared to allow our service personnel to run the line.
- The service line path should avoid areas where vehicular traffic will occur, unless your temporary service post height is increased to provide adequate clearance.

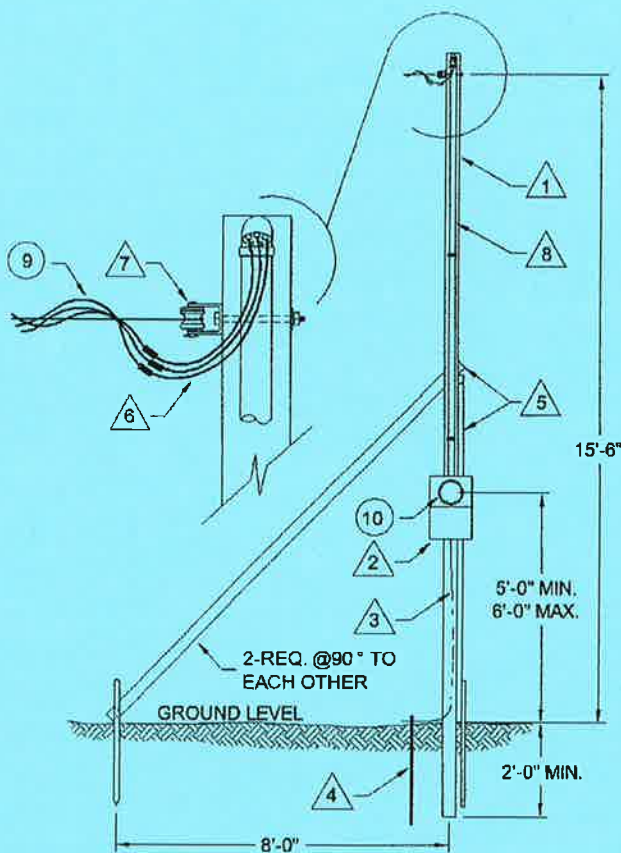
Underground Temporary Service

The following items are required to properly locate your service pole:

- Locate your temporary service pole between our equipment and your home or building.
- Set the service pole on your property 3 feet to 5 feet from the transformer or pedestal. If you do not have a transformer or pedestal on your property, please call the Benton PUD Engineering Dept. at 582-1230.
- If a distance greater than 5 feet is required, please contact a Field Engineer for approval prior to construction.

It is your responsibility to provide a buried cable from your temporary pole to our transformer or pedestal plus 6' of cable for our line crews to make the connections to our equipment.

See reverse side for specifications



Overhead Temporary Service Installations

△ Items owned and installed by the customer:

1. 4" x 4" x 18' (minimum) wood post
2. Meter socket and distribution panel (0-125 amp, 120/240 volt, single-phase) Meter socket not required for unmetered temporaries (60 amps or less), if socket installed must have a UL listed jumper cover.
3. Ground wire per NEC
4. Ground rods per NEC (2 required)
5. 2" x 4" wood brace (2 required)
6. Service entrance conductors (leave 18" minimum of wire exposed at the weatherhead)
7. Insulated clevis
8. PVC conduit, minimum size depends on conductor (Schedule 40 minimum)

○ Items owned and installed by Benton PUD

9. Service conductors
10. Meter (when required)

Underground Temporary Service Installations

△ Items owned and installed by the customer

1. 4" x 4" one piece wood post, set solidly, brace as necessary
2. Meter socket and distribution panel (0-200 amp, 120/240 volt) Meter socket not required for unmetered temporaries (60 amp or less), if socket installed must have a UL listed jumper cover.
3. Ground wire (per NEC)
4. Ground rods (2 required, per NEC)
5. Service Conductor (per NEC)

○ Items owned and installed by Benton PUD

6. Transformer or pedestal
7. Meter (when required)

