VERA
WATER & POWER

ELECTRIC AND WATER

SERVICE REQUIREMENTS

924-3800

www.verawaterandpower.com

June 2010

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REMEMBER☎TO CALL
BEFORE YOU DIG
ONE-CALL SYSTEM

1-800-553-4344

INTRODUCTION

This booklet is designed to provide general information for electric and water service. Please call Vera Water and Power's office for further details or for information not covered herein.

Copies of the utility's current effective policies and rates are available upon request.

It is recommended that Vera Water & Power be consulted to resolve any questions concerning the requirements in this booklet.

All required fees must be paid prior to any work being done by Vera.

These requirements are subject to change without prior notice.

How to contact Vera Water and Power:

Mailing Address:	P.O. Box 630 Spokane Valley, WA 99037-0630
Shipping address:	601 N. Evergreen Spokane Valley, WA 99216
24 - Hour Phone:	(509) 924-3800
Fax Line:	(509) 922-3929
Business Hours:	7:30 A.M. - 5:00 P.M. Excluding Saturdays, Sundays & Holidays
Internet:	www.verawaterandpower.com

REQUEST FOR SERVICE
WATER AND ELECTRIC

All requests for service must include the following information:

1. Customer Name (This is the actual individual or entity responsible for paying the bills.)

2. Service Location (This must include the actual physical address of the site.)

3. Mailing Address (Where the bills are to be sent.)

4. Legal Description (This must include the lot and block in subdivisions and all parcel numbers that are available.)

5. Phone Numbers (This should include the phone number of the person responsible for the billings and a cell phone number for the foreman or owner of a construction company on new construction.)

6. Property Owner (If the Customer Name is not that of the actual property owner, we will need the name and address of the legal property owner.)

All charges and fees must be paid in advance of any work being done.

GENERAL ELECTRIC INFORMATION

Codes and Ordinances

In addition to the rules set forth by Vera Water and Power, it is necessary that the construction of new or remodeled installation conform to applicable provisions of the National Electrical Code, National Electrical Safety Code, Washington State rules & regulations and Spokane County ordinances.

Availability of Service

The availability of service and type of equipment used shall be determined by Vera Water and Power. It is important that the utility be provided, as soon as possible, with accurate load information and required date of service.

Breaking of Meter Seals

The purpose of seals placed on meters by a utility is for safety and/or prevention of tampering. Under normal circumstances, only utility personnel shall remove seals. The customer is responsible to notify the utility prior to the removal of meter seals for any reason. Seals may be removed only in an emergency. The utility must be notified as soon as possible thereafter.

Any person who wrongfully obtains electric service by bypassing, tampering with, or modifying a meter may be convicted of a crime. Conviction may result in a fine, jail or both.

Meeting Utility Requirements

Anytime any changes, alterations or additions are made to any electrical service, all metering must meet the current utility standards. This will include locations and equipment.

Service Location

Any wiring performed without first having the utility determine the point of delivery, service equipment locations or following utility standards, is done at the risk of having the service location changed to conform with the requirements set forth herein or refused.

RESPONSIBILITY FOR ELECTRIC SERVICE

Utility

The utility is responsible for repairs and service up to the point of connection with the customer, including the meter.

Customer

Customers using computers or other non interruptible equipment should upgrade their meter sockets to provide manual circuit closing to prevent accidental outages during routine meter maintenance.

Customers should provide protection for their equipment which might be damaged by single-phasing three phase loads.

Emergency Generators

Any customer emergency generator equipment interconnected with the utility system must be inspected by the appropriate governmental agency and shall be connected by methods approved by the utility. Most installations will require automatic disconnect switches to isolate the generator from the utility system.

ELECTRIC SERVICES

General

The service entrance shall be located so that the meter and service are easily accessible from utility distribution lines and convenient for installation, reading and maintenance of meters.

The customer service shall be located within 5' of the street-side corner of the building. On new homes **without** garages, the service **shall not** be located on the **driveway** side. The meter shall not be located at the point of service. See Figure on Page 9.

Special permission by the utility is required for more than one point of attachment.

Washington State Department of Labor and Industries

Approval for connection from the Department of Labor and Industries must be **received in the utility's office** prior to the connection of a new, permanent, temporary or modified electric service.

Service Entrance Conductors

Service entrance conductors must be installed in continuous approved conduit, or be made up of a service entrance cable as approved by the existing local electrical code. Only approved conduit shall be used from the meter socket to below grade on an underground service.

The neutral wire shall be permanently marked with white.

On four-wire, 120/240 volt delta installation, an orange marker shall be used to identify that leg which is 208 volts to ground.

Metered and non-metered circuits shall not be run in the same raceway or conduit.

OVERHEAD INSTALLATIONS

Service drops will be installed and attached to the building by the utility, provided a suitable anchor point is installed by the customer.

All service entrances should be located so that the service can be attached to the building at the one point only. Roof jacks may be used for additional clearance when required.

The service shall terminate no more that four feet in from the outside edge of the building wall on the service drop side. The point of attachment must be high enough to allow proper ground clearance for the service drop, per the National Electric Code. Clearance from windows, decks and pools must conform to all codes and utility standards.

Service entrance conductors shall be installed by the customer and shall extend a minimum of 18" past the weather head.

UNDERGROUND INSTALLATION

Single Family Residential - Single Phase Service

The utility will extend underground service into approved exterior mounted enclosures. (NEC minimum 200 amp underground approved socket.) The customer shall be responsible for all required excavation, backfilling and padding material. All underground service entrance conductors shall be installed and connected in the meter base by the utility. All underground services shall be buried a minimum of 36" deep. When the service conductors cross an area, such as a driveway, that will be concreted or asphalted, the customer shall supply conduit of sufficient size that the utility can run the service wire through it. 4" will be the minimum size.

The District requires that the customer not install leads from the meter base for splicing. The District will require the customer to remove any such leads prior to service connections.

General Underground Service (All except section above.)

The customer shall furnish, install and maintain all service conductors, including connection to the transformer. Single phase transformer connections shall be to a setscrew bar, and three phase transformer connections shall be 2-hole NEMA compression lugs. On three phase, single service, pad mounted transformer installations with current transformers mounted on the secondary bushings of the transformer, the meter base will be supplied and installed by Vera on the side of the transformer.

The customer is responsible for the installation of the concrete transformer pad.

ELECTRIC METER LOCATION

General

Metering equipment shall be located on the line side of the main disconnect.

EXCEPTION: When there are more than six meters, they will be located on the load side of the main disconnect, if a main disconnect is required, and on the line side of individual service switches.

Residential

A customer or contractor is not authorized to relocate any meter belonging to the utility or interfere with the meter or its connections without prior utility approval.

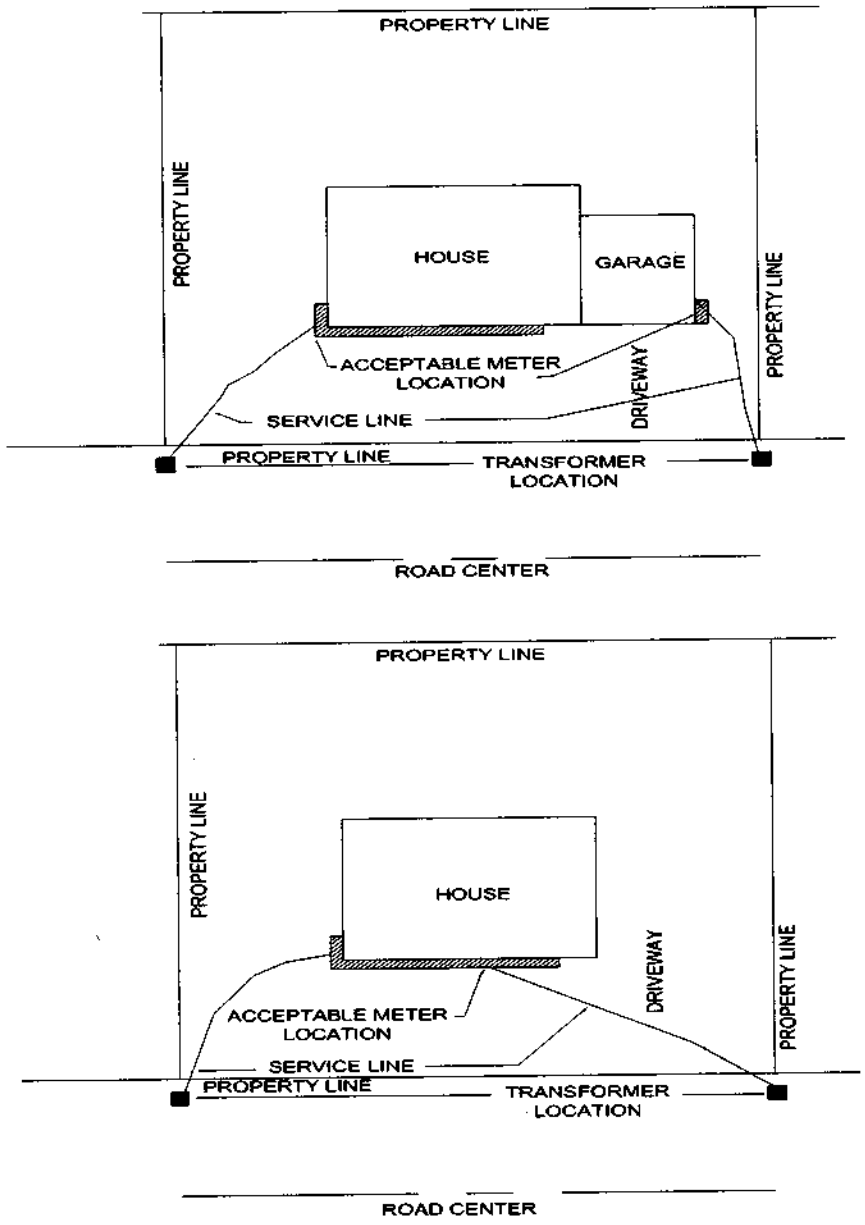
All meters and metering enclosures for new one and two-family dwellings must be installed outdoors in a common location. Older dwellings requiring an increase in the service entrance conductor size, or a change of location of the service entrance, meters shall be relocated and installed outside.

Meters shall not be installed under any type of porch, porch roof, deck or similar enclosure.

A 320 class, manual lever-type circuit closing socket is required for a 400 amp residential service. Contractor shall provide (2) 2" conduits or (1) 3" conduit.

Single meters shall be installed between 5 and 6 feet to the top of the meter above finished grade. The meter shall be located at the point of service.

On new homes without garages, the service shall not be located on the driveway side.



General Underground Service (All except section above.)

The meter and metering transformer enclosures shall be installed outside, except by special permission from the utility. If a meter is installed indoors, access must be provided via a key, code or other joint locking mechanism.

When meters are installed inside, they shall be installed at the service equipment. Meters must be within 5' of any main switch, buss or gutter, and not separated by a wall or partition. No metering equipment shall be installed at a service switch located in an inaccessible place or in a manhole.

When meter modules are installed, they shall be installed not more than 6' to the top of the meter and not less than 18" to the bottom of the meter, above the floor grade or finished grade.

Multiple meters in one building shall be grouped in only one location.

Identification

When more than one meter is installed at one location the installer shall clearly mark each socket and unit in suitable permanent lettering with the correct address or number of the building area served by the meter.

The building owner shall be responsible for proper identification.

Service will not be established until marking is complete.

ELECTRIC METERING

General

No condulets or connections are allowed ahead of the metering.

Regulations permit only a single meter installation per customer.

The utility has the right to enter the customer's premises for meter reading, maintenance or removal of its property.

All cabinets, gutters, sockets, and associated devices on the line side of the meter must have provisions for sealing by the utility and shall remain sealed at all times.

Single meters shall be installed between 5 and 6 feet to the top of the meter above floor or finished grade. Exception will be pedestal metering and metering modules.

Whenever additions, alterations or changes are made on systems having meter installations not in accordance with this section, the customer shall properly relocate the metering equipment.

Ample work space shall be provided for the metering and kept clear at all times. Minimum horizontal space shall be 30" with the meter centered. Minimum frontal clearance is 36", per National Electric Code.

Instrument Transformer Requirements

Metering equipment shall be located on the line side of the main disconnect.

Current transformer metering is required where the ampacity of three phase service exceeds 200 ampere, and the ampacity of a single phase service exceeds 400 amperes.

Current transformers are provided by the utility and installed by the customer. The customer shall provide, and solidly mount, correct meter sockets, conduit and current transformer enclosure when required.

Meters shall not be located further than 30' from instrument transformers, measured in wire length.

On overhead service, current transformers shall be mounted on, or adjacent to, the masthead. The weather head for metering wire shall be mounted within a foot of the instrument transformers.

On underground service, at the utility's option, current transformers may be mounted in a three phase pad mount transformer that is dedicated to only one customer.

One inch conduit shall be used from the current transformer to the meter.

Meters shall be mounted with the top of the meter no higher than 6' above finished grade.

METERING EQUIPMENT REQUIREMENTS

Types of Service	Capacity Amperes	Metering Equipment
Single Phase 120-240	Up to 100	4 Terminal 100 amp
	101-225	4 Terminal 200 amp
	226-400	4 Terminal 400 amp
	401-600	5 Terminal 200 amp Circuit Closing
Single Phase 120-208 Wye	Up to 200	5 Terminal 200 amp
	Over 200	13 Terminal 100 amp Circuit Closing
Three Phase 120-208 or 277-480 Wye	Up to 200	7 Terminal 200 amp Circuit Closing
	Over 200	13 Terminal 100 amp Circuit Closing

For other types of services, please call for requirements.

TEMPORARY ELECTRIC SERVICES

Overhead Temporary Electrical Services

Customer shall contact the Vera office before installation to request temporary service and to determine available voltage and location of source.

Customer shall provide and install service post and all materials required, except service drop wire and meter. Customer may be required to install an approved down guy if service drop is over 125', or larger than #2 AL Triplex, or over tensioned for ground clearance.

Wherever possible, the service post shall be located within 125 feet of the nearest distribution pole, and as close as possible to the permanent service location. Vera may then elect to run the permanent service wire to the service post for future transfer to the permanent service location.

Location and height of meter pole shall allow service drop ground clearance of 12' minimum over areas subject to pedestrian and restricted traffic and 18' over areas subject to truck traffic including driveways.

Wiring and equipment capacity shall comply with state and local codes. A wiring permit must be in evidence before service is connected.

When permanent service is to be underground from an overhead transformer, the temporary services shall be overhead.

Multiple or high capacity temporary installations will require special fees and conditions of service.

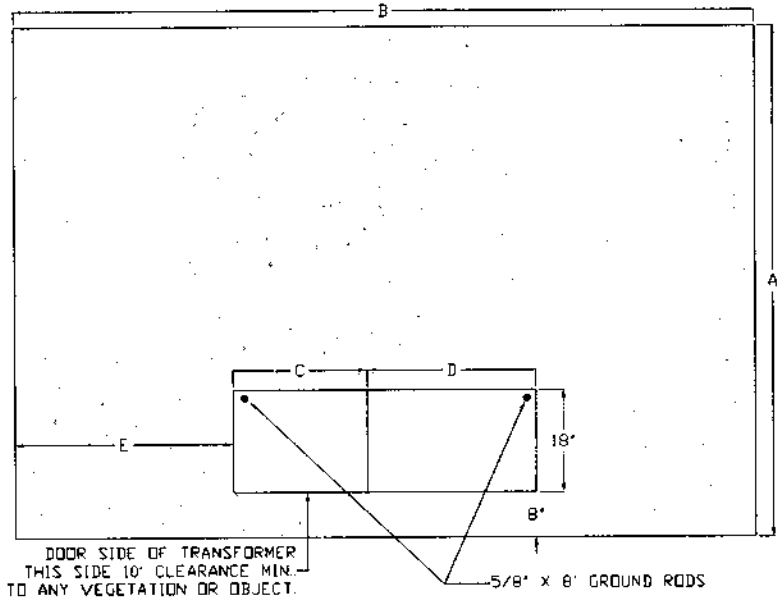
Underground Temporary Electrical Services

Before installation, the customer shall contact the business office of Vera Water & Power to request temporary service and to determine available voltage and location of source. The customer shall furnish and install all temporary facilities except meter. Metering post must be firmly set or adequately braced.

The customer shall provide sufficient cable to reach the source plus 5'. Vera will connect to the source. The customer shall bury the service cable if the service is more than 5' from the source. 24" minimum burial depth is required. Cable must be in good condition and select backfill must be provided to prevent damage to the cable. If the service is within 5' of the source, Vera will bury the cable.

Care must be taken to prevent digging into the existing buried facilities. Power cables are normally installed on the street side of the power source and water facilities are normally installed to each side of the power source. Therefore, the customer shall set the temporary post on the property side of the power source no more than 2' from the source. Wiring and equipment capacity shall comply with state codes and an approved wiring permit must be present before the service will be connected.

TRANSFORMER PADS



Dimensions	A	B	C	D	E
75 - 500 KVA	80"	90"	18"	18"	27"
500 - 1500 KVA	90"	132"	24"	30"	39"

Instructions

Pads shall be constructed on firm, undisturbed earth, or well compacted earth, and shall be bedded with gravel. Concrete shall be 5 bag mix with 3/4" maximum size aggregate. Top surface shall be broom finished. Edges shall be rounded. Concrete shall be at least 4" thick and shall be reinforced at half the depth with #6 Ga. 6" x 6" welded wire fabric or #3 reinforcing bar on 12" centers each way. Reinforcing shall extend around conduit window.
The high/low voltage window space shall be open, not concreted in.

The high and low voltage conduits shall be confined to their respective spaces. Two 5/8" x 8' ground rods, one in each window, shall be driven vertically into ground with 8" remaining above the concrete. In some circumstances, a copper ground loop may be required in place of the ground rods.

Vera may supply a vault for use in the knockout area when Vera requires additional space for cabling.

TRANSFORMER PAD LOCATIONS

The location of the pad, transformer and point of delivery shall be located by Vera prior to the start of preparation and construction.

The transformer shall be located as follows to conform to the National Electric Codes.

Clearance To	**Minimum**
Non-Combustible Wall	2'
Combustible Wall	8'
Doors, Windows & Other Openings	8'
Combustible Eaves 14' or Less Above Grade	8'

A clear area of 10' radius must be provided from the front of the transformer to provide access for the operation and maintenance of the transformer. Transformers located near traffic areas will require the installation of protective bollards by the customer. Bollards shall be a minimum of 8" diameter steel pipe, buried 3' deep, extending 4' above grade, painted safety yellow, poured in concrete and filled with concrete.

Notes: A wall is considered non-combustible if none of its components will burn. The local building code inspector is responsible for determining the classification of the structure. Normally, the following are classified as non-combustible: concrete, masonry over wood or timber framing and all steel where no wood can be erected against the interior surface.

Pad shall be located and sized to permit the required clearances.

GENERAL WATER INFORMATION

Application for Service

Application for service will be made at the Vera Water & Power office. Customer must provide a legal description of the property to be served at the time application for service is made.

Services

The size and location of the service shall be determined by the utility. Monthly water charges start immediately upon installation and continue until service is terminated.

Fees

All required fees for construction, as set forth in the current rate schedules, shall be paid in advance of the utility performing any work.

Service Connections

All service connections to the main will be made by the utility. A finished grade elevation must be provided to the utility prior to installation. The customer will be responsible for the installation of that section of the service line extending from the meter to the point of use. Customer shall provide padding material for utility use during installation of the pre-taps. Customer is responsible for maintaining the post marking the end of the pre-tap until water meter is installed.

WATER SERVICE LINES

Each separate parcel of land must have its own water service. All service lines must meet the applicable codes. A full opening valve shall be installed on the inside of the structure where the water service enters. Contact the District for exceptions. An irrigation valve or connection point is available at the meter location upon request at an additional cost.

WATER PRESSURE

In areas of greater than 80 psi static pressure, a pressure reducing valve is required to be installed by the customer. In areas of less than 40 psi static pressure, a booster pump will be required to be installed by the customer. New subdivisions will be designed with a minimum of 50 psi at all locations.

COMMERCIAL WATER SERVICES

Commercial Services shall be a 1" minimum size. Some services, as determined by the utility, will require a lockable meter bypass.

CROSS CONNECTION CONTROL

A cross connection is a connection between a potable water system and a non-potable water system through which a contaminating flow can occur. Any service connection that, in the utility's judgement, is considered to be a cross connection, shall have a Washington State approved back flow prevention device installed on the service line. The back flow prevention device will be required to be tested annually by a Certified Back Flow Assembly Tester with the results submitted to the utility.

LARGE WATER SERVICES

Any service larger than 1" will require special planning and approval by the utility. Design flow requirements will need to be provided to insure proper design.

WATER METER LOCATIONS

All meters shall be located at the property line unless otherwise approved by the utility.

CUSTOMER RESPONSIBILITIES

The customer is responsible for the maintenance of the water service line and its appurtenances. The water service line shall be defined as starting at the corporation stop on the main and continuing to the point of use. All damage due to freezing and vandalism as well as all water loss due to leaks is also the customer's responsibility.

LANDSCAPING RECOMMENDATIONS

Both water and power facilities can be affected by landscaping decisions. Access to buried water boxes is necessary annually to read and maintain meters. Landscaping should be designed to allow access from above to these facilities.

Taller varieties of trees frequently grow into the overhead power lines. This can cause outages and fires and presents an electrocution danger. When planting under overhead lines, varieties of trees that grow in excess of 12' in height should be avoided.

Pad mounted electrical transformers must be accessed from the front. A 6' clear area in front of the transformer must be maintained for safe operation. Any landscaping materials placed in this area, or plants installed in this area, must be low enough that it is safe for the operating personnel to stand on the plant. Grass, bark and gravel are preferred for installation in this area.