Parkland Light & Water Co.

ELECTRIC SERVICE REQUEST
AND
METER STANDARDS

Revised: January, 2018
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Parkland Light & Water Co.

RECEIPT OF ELECTRIC SERVICE REQUEST AND METER STANDARDS

Please return this form via mail or fax (253) 531-2684 prior to applying for electric service

Date: _____

Number of Pages: ___

I have received the Service Request form and the Meter Standards.

I understand that new & altered services must be installed and serviced via underground cable.

NOTE: A COPY OF THIS PL&W STANDARDS DOCUMENT SHALL BE GIVEN TO YOUR ELECTRICAL CONTRACTOR

Property Owner	**Tenant**
Signature:	Signature:
Print Name:	Print Name:
Phone Number: ( )	Phone Number: ( )
Address:	Address:
City:	City:
State/Zip:	State/Zip:

12918 PARK AVE. ● P.O. BOX 44426 ● TACOMA, WA 98448-0426 ● (253) 531-5666 ● FAX (253) 531-2684

Revised 1/4/2018

Parkland Light & Water Co.

ELECTRIC SERVICE REQUEST FORM

Date: _____

I am the owner of the property at _____
I am requesting electrical service for a:

☐ Residential ☐ Commercial

☐ New: proposed _____ amp service
☐ Altered: existing _____ amp service / proposed _____ amp service

☐ Single-phase ☐ Three-phase
☐ 120/240 volt ☐ 120/208 volt Grounded-wye ☐ 277/480 volt Grounded-wye

Include a sketch indicating the closest source of power (i.e. existing pad-mount transformer, SSB, etc.), the proposed service entrance, the desired route of **underground** feed and proposed transformer location (if applicable).

Parkland Light & Water Company (PL&W) is required by law to accurately meter its customers/members for electricity consumption. Rate policies are coordinated with the specific types of metering equipment for various customer/member loads. Customer/member shall supply load calculations for the proposed service in accordance with National Electric Code (NEC) Article 220. PL&W will select a meter socket to be installed that allows for the correct metering equipment based on the supplied calculations.

The load summary is broken down as follows (to be completed by an electrical contractor). Please note which load is single-phase and which is three-phase. Do NOT include heating, cooling, cooking or miscellaneous loads in total motor load. Exclude convenience outlets. *Load calculations may be supplied on a separate attached sheet*.

Total lighting_____KW	Total heating_____KW	Total cooling_____KW
Total motors_____HP	Largest motor_____HP	Total cooking_____KW
Total Hot Water Heating_____KW	Total Miscellaneous Loads_____KW	

Description of Misc. Loads: _____

_____

Temporary power requested by: _____ Permanent power requested by: _____

If a transformer needs to be purchased for this service, the customer/member will be responsible for its actual cost *even in the event that the proposed service is not energized*. The customer/member will also be responsible for other costs incurred by Parkland Light & Water Company associated with preparing to deliver electric service to the subject property.

On most commercial applications the customer/member's electrician may be responsible for making the secondary connections to the transformer and installing two-hole compression lugs with 1/2 inch stainless steel bolts, flat washers and Bellville washers or making the connection in the secondary splice box - verify with PL&W engineering department. Should an outage be required to make connections to an existing transformer, it is the customer/member and their electrician's responsibility to arrange for the outage no less than five business days prior to the date with the PL&W Operations Department.

My General Contractor is: _____ Phone: ( ) -
My Electrical Contractor is: _____ Phone: ( ) -

Signed: _____(Owner) _____(Tennant)
Print: _____(Owner) _____(Tennant)
Company Name: _____(Owner) _____(Tennant)

Please submit this form by mail, fax, or in person to Parkland Light & Water Co.

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Revised 1/4/2018

1 GENERAL INFORMATION

1.1 PURPOSE

Parkland Light & Water Company, a member-owned cooperative, welcomes your application for electric service. This document contains the current information and service standards that should be followed when applying for or modifying an electric service. If you have questions or need further assistance applying for electric service, please contact Parkland Light & Water:

Parkland Light & Water
12918 Park Ave
Tacoma, WA 98444

ph: (253) 531-5666
fax: (253) 531-2684

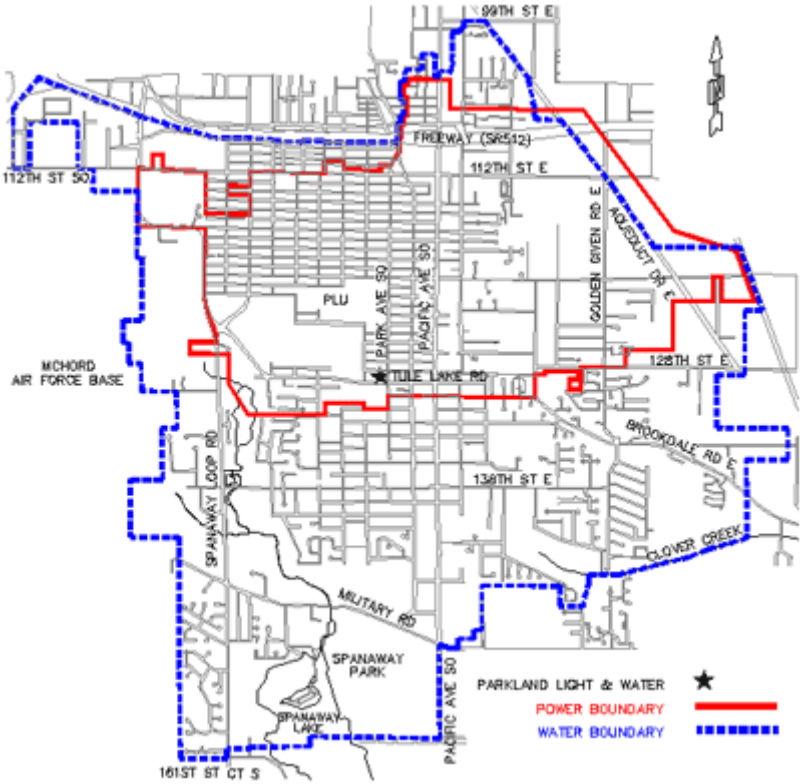
1.2 DEFINITIONS

In the context of this document, the following definitions apply:

"PL&W" – Parkland Light & Water Company
"Owner" – The owner of the property applying for service or currently being served by Parkland Light & Water Company
"Applicable codes" – requirements and codes, as defined in Section 1.6
"NEC" – National Electric Code, latest revision
"OSHA" – Occupational Safety and Health Administration
"SSB" – Secondary splice (junction) box
"L&I" – Washington State Department of Labor and Industries
"WAC" – Washington State Administrative Code
"RCW" – Revised Code of Washington State
"Secondary Connection Point" – demarcation point between customer/member and PL&W, typically located on the secondary side of a service transformer or in a SSB
"Member" – a member-owner of the PL&W cooperative.
"Customer" – a person or entity applying for or receiving electric service from PL&W. A customer may be a non-member. For example, the customer may be a tenant of the member.
"Customer/Member" – the customer or member applying for or receiving electric service at the specified property

1.3 SERVICE AREA

Parkland Light & Water Company serves the following area of Parkland, Washington as shown on the service boundary map. Refer to https://www.plw.coop/member-services/ for additional detail.



SERVICE BOUNDARY MAP

1.4 MEMBERSHIP

Parkland Light & Water is a mutual utility. A mutual is a form of cooperative where the members of the utility are also the owners. As a part owner in the company, the members also have a voice in how it is operated. A five-member Board of Trustees, elected by the members, represents them in deciding company policy. They meet monthly with the company manager for updates on the state of the company and to make decisions that decide the long-term company direction. In a mutual it is the customer/member, and not stockholders that determines the policy and direction of the organization. PL&W operates on a not for profit basis. Excess operating revenue is used to improve service or it is returned to the membership in the form of lower rates.

Membership shall be granted to property owners who desire electric and/or water service to be delivered to their specifically designated property. Any person desiring to secure electric or water service from PL&W shall file an application upon forms furnished by PL&W. There is a fee associated with membership. Contact PL&W for the current application process and fee schedule.

Membership policy is available for review at the PL&W office.

1.5 LIMITATION OF LIABILITY

Parkland Light & Water Company shall not be liable for any loss, injury, or damage resulting from the interruption, restoration, or reduction of electric service from any cause, including but not limited to failure of generation, transmission, or distribution systems; inadequacy of energy supply; implementation of emergency plans; temporary disconnections for repairs and maintenance; or failure to pay for services rendered.

1.6 CODES AND COMPLIANCE

The Parkland Light & Water Company requires that new or modified construction intended for electric service meet or exceed the applicable requirements and codes from the Washington State Department of Labor and Industries; the Occupational Safety and Health Administration (OSHA); the National Electric Code (NEC); the National Electric Safety Code; the Washington Administrative Code; as well as PL&W standards, construction requirements, written policies and directives.

It is the responsibility of the property owner and their electrician to understand the Parkland Light & Water Company standards for service. The customer/member should contact Parkland Light & Water Company for clarification in the event that conflicts between requirements arise.

1.7 EASEMENTS

Parkland Light & Water Company will construct, own, operate, and maintain facilities only on easements or rights-of-way satisfactory to PL&W. Easements must be kept clear such that maintenance access to facilities by PL&W staff is permitted. If legally documented easements are required for service, it is the member's responsibility to provide the easements to PL&W.

1.8 METER SEALS AND TAMPERING

PL&W applies one-time-use seals to revenue meters, and locking devices to pad mounted electrical equipment. The purpose of these seals is to prevent injury, equipment damage, and tampering.

Customer/member removal of any locking devices, seals or electric meters will result in a tampering fee and/or disconnection of service until a safety inspection can be performed by the Washington State Department of Labor & Industries.

If modifications to customer/member owned equipment requires the de-energization of the electric meter, contact PL&W for assistance 48 hours prior to beginning the work.

1.9 UTILITY LOCATES

Washington law requires anyone planning to excavate to know what is below before they dig. Two business days before you start digging, call 811 to speak to a live person that will take down your project details; it takes about 10 minutes. More information is available at http://www.washington811.com/

2 ELECTRIC RATES AND FEES

2.1 ELECTRIC RATES

Electric service is segmented into three customer classes: Residential, Small Commercial, and Large Commercial. A service is defined as large commercial if both of the following requirements are met:

- Demand exceeds 50 kW per month
- Average usage exceeds 18,000 kWH per month

The details of PL&W's rates are posted at the following URL:

https://www.plw.coop/member-services/billing/

2.2 LATE PAYMENTS AND RETURNED CHECKS

Delinquent residential accounts shall be assessed a late charge of $10.00 and service may be discontinued without further notice.

Delinquent commercial accounts shall be assessed a late charge of $10.00 + 1 ½ % of delinquent amount and service may be discontinued without further notice.

Checks returned by the bank for non-sufficient funds shall be assessed a service charge of $30.00.

2.3 RECONNECTION

Any service entrance that has been de-energized for a period of 6 (six) months or longer shall have a current electrical inspection completed by the Washington State Department of Labor & Industries (L & I) prior to PL&W connecting or reconnecting the service. This inspection is the responsibility of the customer/member.

3 ELECTRIC SERVICE STANDARDS

3.1 GENERAL

The Parkland Light & Water Company operates a 12.47 kV grounded-wye distribution system. Customers connecting to the PL&W electric distribution system must adhere to the design standards set forth in Section 0.

3.2 AVAILABLE SERVICE VOLTAGES:

PL&W provides electric service to customers at the following service voltages:

120/240 Single-phase
120/208 Grounded wye three-phase
277/480 Grounded wye, three-phase

3.3 STANDARD SINGLE-PHASE TRANSFORMER CONFIGURATIONS

The following single-phase transformer configurations are standard sizes for PL&W.

25 kVA, 120/240
37.5 kVA, 120/240
50 kVA, 120/240
100 kVA, 120/240
167 kVA, 120/240

3.4 STANDARD THREE-PHASE TRANSFORMER CONFIGURATIONS

The following three-phase transformer configurations are standard sizes for PL&W.

45 kVA, 120/208
75 kVA, 120/208
150 kVA, 120/208
300 kVA, 120/208
500 kVA, 120/208

150 kVA, 277/480
300 kVA, 277/480

3.5 NONSTANDARD TRANSFORMER CONFIGURATIONS

If a customer/member design calls for a transformer configuration not listed above, PL&W will purchase two of the requested transformers at the customer/member's expense. The second transformer becomes the property of PL&W to be used as a replacement in the event of the failure of the first transformer.

3.6 TRANSFORMER LOADING

When filling out the Electric Service Request Form, make sure that the expected demand and connected kVA information is accurate.

Once service has been energized for a period of six months, PL&W will compare metered demand with the calculated load supplied by the customer/member on the Service Request form. If the metered demand is not within 20 percent of the design load indicated on the application for service, PL&W may decide to replace the transformer with a correctly sized transformer for efficiency and other reasons. The customer/member will be liable for the cost of this work.

3.7 PROTECTION OF CUSTOMER-OWNED EQUIPMENT

PL&W is not responsible for damage to customer/member-owned equipment. The customer/member is responsible for the following:

Single-Phase protection
Reverse Phase Rotation protection
Power Conditioners
Over-voltage and under-voltage protection
Uninterruptible power supplies where needed

3.8 ACCESS BY PL&W

All permanent meter locations shall be accessible by PL&W personnel at all times, located on the outside of the structure. Placement shall be approved by the General Manager or his/her representative.

Sufficient clearances, as defined by Washington State L&I and PL&W, shall be provided and maintained by the customer/member around all electric service equipment including but not limited to: transformers, meter bases, conductors, current transformers enclosures, junction boxes, and other locations that may be subject to periodic or routine examination, testing, maintenance, repair or troubleshooting.

Failure to maintain sufficient clearances may result in discontinuance of electric service until all conditions are brought back into compliance at the customer/member's expense.

For additional detail, request Service Requirement Drawing "P_E118A - Transformer Location Requirements."

3.9 LIMITS TO OWNER ACCESS

Access to Parkland Light & Water Company owned transformers and vaults is prohibited without either written permission from Parkland Light & Water or the presence of their authorized representative. Any violation of the aforementioned statement shall result in discontinuance of service to the tampered facility until the Washington State Department of Labor and Industries Safety department has been notified and has completed an inspection of the site.

3.10 ALTERATIONS TO SERVICE

Any service altered in a way that brings it out of compliance with these standards may result in discontinuance of service until all conditions are brought back into compliance at the customer/member's expense.

3.11 TEMPORARY ELECTRIC SERVICE

Residential and commercial temporary electric services must be installed underground and per the NEC and other applicable codes and PL&W standards. Overhead temporary electric service is not permitted.

Customer/member is responsible for supplying and installing all temporary service related materials including trenching & enough excess conductor coiled at source location to reach the PL&W secondary connection point(s). See page 21

3.12 PERMANENT ELECTRIC SERVICE

Pages 24 thru 26 of this document (SERVICE REQUIREMENT DRAWINGS) represent many but not all of the service configurations allowed in the PL&W service area. Please contact our Engineering Department if your proposed installation is not represented.

3.13 LOCATION OF SERVICES

All temporary electric services are to be installed at a location near an existing PL&W transformer or secondary splice box (SSB). Contact the engineering department to confirm location prior to installation.

Permanent residential electric services must be located outdoors on either the front; the front 1/3 of the side of a single family residence; or on a meter pedestal at a location approved by PL&W. (See Service Requirement Drawings)

Permanent commercial electric services must be located outdoors on either the front; the front 1/3 of the commercial building; or on a meter pedestal at a location approved by PL&W. Any other location would require PL&W approval. (See Service Requirement Drawings)

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Revised 1/4/2018

4 RESIDENTIAL UNDERGROUND SERVICE

4.1 RESIDENTIAL SERVICE REQUIREMENTS

Residential electric service shall be delivered via underground cable at 120/240 volts, single-phase. Any request for a single-phase service greater than 320 amps or for a three-phase service of any size will fall under the "Commercial Underground Electric Service" requirements detailed in Section 0.

4.2 RESIDENTIAL SERVICE CLASSIFICATIONS

PL&W separates residential service installation into three classifications. This permits a simplified fee structure and installation procedure for basic requests, and more detail where needed for complex requests.

SERVICE TYPE	AMPERAGE	LENGTH (FT)
Short Service	200 & 320	0-75
Long Service	200 & 320	76-150
Excess Service	200 & 320	>150

Service lengths are measured from the nearest PL&W secondary connection point to the intended meter location.

The **"Short Service"** classification covers single-phase residential services up to 75 feet in length and up to and including 320 amp ratings. This would apply mainly for new homes built in a new Subdivision or Short Plat where an existing PL&W service source exists at the property frontage. A second service to an existing property served by PL&W, such as a service to a residential garage or barn, could potentially fall under this classification as well. The installation procedure for a Short Service is detailed in Section 4.3.

The **"Long Service"** classification covers single-phase residential services between 75 and 150 feet in length and up to and including 320 amp ratings. This would apply mainly to existing service areas where developers have done lot line revisions and created a new home site between two existing PL&W customers. This type of service usually involves PL&W performing work in the right-of way. This may include: intercepting existing underground facilities, installing a road crossing, or an extension of facilities. The installation procedure for a Long Service is detailed in Section 4.3.

The **"Excess Service"** classification would apply to any service that was greater than 150' in length, and/or a service that required the installation of a new or different transformer. The installation procedure for an Excess Service is detailed in Section 4.4.

4.3 SHORT AND LONG SERVICE APPLICATION PROCEDURE

The application procedure for short and long service is the same. See Section 4.2 for service classification details.

ITEM	RESPONSIBLE PARTY	NOTES
Verify/apply for PL&W Membership	Customer/member	
Submit Electric Service Request form	Customer/member	
PL&W will identify optimal service point	PL&W	
Amend, finalize design	PL&W	with customer/member input
Pay installation fee	Customer/member	
Open trench	Customer/member	per design and PL&W instructions, call 811
Provide & install secondary conduit	PL&W	Trench must meet PL&W standards
Inspection by Washington L&I (OK to cover)	Customer/member	
Provided and install secondary conductor	PL&W	from transformer to meter base**
Inspection by Washington L&I (OK to energize)	Customer/member	
Provide, install and energize meter	PL&W	Enclosure/Meter Base by customer/member

**Connections in meter base are customer responsibility

4.4 EXCESS SERVICE APPLICATION PROCEDURE

The **"Excess Service"** classification would apply to any service that was greater than 150' in length, and/or a service that required the installation of a new or different transformer.

ITEM	RESPONSIBLE PARTY	NOTES
Verify/apply for PL&W Membership	Customer/member	
Submit Electric Service Request form	Customer/member	
PL&W will identify optimal service point	PL&W	
Amend, finalize design	PL&W	with customer/member input
Pay installation fee	Customer/member	
Pre-construction meeting, PL&W & Customer/member	Customer/member	
Open trench	Customer/member	per design and PL&W instructions, call 811
Provide and install MV conduit, cable, equipment	PL&W	if required
Provide and install transformer	PL&W	if required
Provide & install secondary conduit	PL&W	Trench must meet PL&W standards
Inspection by Washington L&I (OK to cover)	Customer/member	
Provide and install secondary conductor	PL&W	from transformer to meter base**
Inspection by Washington L&I (OK to energize)	Customer/member	
Provide, install and energize meter	PL&W	Enclosure/Meter Base by customer/member

**Connections in meter base are customer responsibility

4.5 RESIDENTIAL SERVICE INSTALLATION FEES

The cost for residential underground electric service depends on the extent of construction required to install new secondary conduit & conductor from Parkland Light & Water Company's existing secondary connection point to the proposed customer-installed meter socket & riser. The customer-installed portion of the service will be constructed in accordance with NEC and PL&W standards (refer to the PL&W service requirement drawings for meter height requirements).

The residential installation fees are assigned based on service classification. See section 4.2 for details. Please contact our Engineering Department to determine which service classification applies to your proposed installation. Please see our web site (https://www.plw.coop/member-services/billing/) for the most up to date installation fees.

Excess Service projects will require advance payment of the estimated fee for equipment supplied by PL&W to provide electric service to the requested property based on the final design. At the conclusion of the project, any additional balance or surplus due will be settled with the customer/member before the property is energized.

4.6 RESIDENTIAL SERVICE EQUIPMENT OWNERSHIP

Once energized, PL&W will assume ownership of the newly installed electric assets from the medium voltage distribution system to the customer/member meter (but excluding the meter base). PL&W will maintain this equipment at its own expense.

Customer/member owns and is responsible for the care of the meter base, riser, and all downstream equipment.

4.7 RESIDENTIAL EASEMENT REQUIREMENTS

To provide service to a typical single family residence, a legal easement is not typically required. This is to be evaluated at PL&W's discretion.

For multiple single family residence developments, a legal easement may be required to allow PL&W access to electric assets located on individual properties. Contact PL&W Engineering to determine if this requirement applies to your proposed design.

The customer/member is responsible for any necessary easement. See Section 1.7

5 COMMERCIAL UNDERGROUND SERVICE

5.1 COMMERCIAL SERVICE REQUIREMENTS

PL&W commercial service includes:

- Single and multi-phase electric service to commercial property,
- Multi-phase service, or greater than 320-amp service to a residential property.

Commercial services shall be constructed in accordance with NEC and PL&W standards (See Service Requirement Drawings).

5.2 COMMERCIAL SERVICE INSTALLATION PROCEDURE

1. Complete the "Electric Service Request" form and *provide PL&W with the load calculations of the proposed or upsized service* and return it to PL&W. If a new transformer is requested, the customer/member shall request a particular size/configuration suitable for the intended design. See Section 3.4 for a list of standard transformer configurations.

2. Supply PL&W with an electronic CAD file of the site plan reflecting the proposed electric service design. Drawing shall include features such as building footprints, roads, sidewalks, landscape features, other proposed or existing utilities, proposed service entrance, bollards, etc. Drawing should indicate dimensions and separation from other utilities. Drawing shall include a trench detail. PL&W will need a CAD file that is compatible with AutoCAD 2010.

3. PL&W will review and annotate the design to indicate how the customer/member will be served. PL&W will produce a cost estimate for the proposed underground service and/or primary extension.

4. Upon approval of design, the customer/member is responsible for granting legal easement(s) to PL&W at this time.

5. Customer/member pays required fees and cost estimate for equipment provided by PL&W. Line construction or transformer installation to be completed by PL&W will be scheduled after all fees are collected.

6. PL&W may furnish the appropriate size meter base and CTs, as required. Customer/member shall furnish and install all other customer-owned secondary equipment including conduit(s) & cable to PL&W secondary connection point identified in the approved design. This will likely be the nearest transformer or secondary splice box (SSB) - verify with PL&W engineering department.

7. PL&W will furnish and install the primary conduit(s), medium voltage cable, and transformer. Should PL&W determine a secondary splice box is required for customer connection PL&W will supply and install conduit and conductor from the transformer to the adjacent secondary splice box.

8. Notify PL&W once the installation has passed L & I inspection (ok to be energized). If all fees have been paid, PL&W will schedule the installation of the meter and wiring of the CTs and test switch as required (see Section 6.4.3). PL&W will supervise the connection of the new service within three to five business days.

9. On most commercial applications, the customer's electrician is responsible for making the secondary connections to the transformer and installing two-hole compression lugs with 1/2-inch stainless steel bolts, flat washers and Bellville washers or making the connection in the secondary splice box - verify with PL&W engineering department. Contact PL&W to obtain permission to enter a transformer or SSB.

10. Should an outage be required to make connections to an existing transformer it is the customer and their electrician's responsibility to arrange for the outage no less than five business days prior to the desired outage date with the PL&W Operations Department.

5.3 COMMERCIAL SERVICE FEES

The cost for commercial underground electric service depends on the voltage, size and extent of construction required for PL&W to provide a secondary connection point for the proposed customer-owned electric service.

Every commercial service application will be treated as a custom project. Fees will be estimated based on the design, and any balance or surplus due will be settled with the customer/member prior to energizing the service.

5.4 COMMERCIAL SERVICE EQUIPMENT OWNERSHIP

PL&W will take ownership of any new electric assets installed as part of the project that are required to provide the secondary connection point for the new service.

Commercial customers own secondary electric assets from the secondary connection point down-line, with the exception of the meter and CTs, if required. The customer/member is responsible for maintenance of customer-owned electric assets. See Sections 3.8 and 3.9.

6 METER INSTALLATION STANDARDS

6.1 METER CLASSIFICATIONS

PL&W utilizes two classes of metering equipment:

- Self-contained meters, for services up to 320 amps (see Section 6.3)
- Current transformer meters, for single-phase services above 320 amps and three-phase services above 200 amps (see Section 6.4)

6.2 GENERAL METERING REQUIREMENTS

General requirements in this section apply to both classes of metering equipment.

6.2.1 NUMBER OF METERS

PL&W will provide no more than four meters to any single property address. If additional meters are required, the customer/member will be required to provide sub-metering facilities. PL&W will not bill the individual sub-metered services; that will be the customer/member's responsibility.

Each unit of a residential duplex structure requesting multiple meters shall be configured as an individual service with a separate meter base, conduit, and conductor to the secondary connection point. (See Service Requirement Drawings)

Residential triplex and quadruplex structures will be classified as commercial service for ownership/responsibility purposes. However, each meter will be individually billed at the current residential rate. See Section 2.1.

6.2.2 METER BASE HEIGHT

Meter base height (centerline) shall be 60 to 66 inches above final grade. In the case of a bank of meters the center of the top row of meters shall not exceed 72 inches above final grade. In the case of banked or multiple meters, obtain PL&W approval before ordering and installing equipment.

6.2.3 METER BASE LOCATION

All metering facilities shall be mounted on an outside wall of the structure. Access by PL&W personnel shall be maintained at all times and shall not be enclosed in any way. Placement shall be approved by the General Manager or his/her representative. If a meter becomes enclosed, such as due to building modifications, it shall be de-energized until it is relocated at the customer/member's expense.

6.2.4 SEALING PROVISIONS

All metering facilities (including conduit) ahead of the meter shall have sealing provisions. See Section 1.8.

6.2.5 DISCONNECT SWITCH PROHIBITED LOCATION

A disconnect before the metering is not allowed.

6.2.6 TRENCH REQUIREMENTS

Drawing “P_E101” included in the Service Requirement Drawings shows a typical trench detail and lists specific requirements to PL&W. Applicable codes and standards are adopted by reference and apply to trench dimensions, required separation, backfill, warning tape, and other requirements.

6.2.7 SPARE CONDUIT

Spare conduit is not required unless requested by PL&W. In the event that it is required, it will be provided and installed by PL&W, with the associated costs charged to the project.

6.2.8 PRIMARY METERING

PL&W typically does not permit new primary metered services. Contact PL&W Engineering for more information.

6.3 SELF-CONTAINED METERS

The following requirements apply to self-contained meters.

6.3.1 SINGLE-PHASE METER BASES

Single-phase (four and five jaws) self-contained 200 amp meter bases shall have no bypass provisions so that power is disconnected if the meter is removed. Self-contained 320 amp meter bases shall have a bypass mechanism equivalent to Milbank U1079.

If single-phase service originates from a three-phase transformer, the self-contained meter shall have five jaws. The fifth jaw shall be in the nine o’clock (9:00) position with at least a #12 AWG conductor between the fifth jaw and the neutral bus.

6.3.2 THREE-PHASE METER BASES

Three-phase (seven jaws) self-contained 200 amp meter bases shall have a bypass mechanism equivalent to Milbank U7423RXL, or in the case of banked meters, equivalent to the GE METER MOD III System with bypass.

If Applicable, the high (wild) leg of a tapped delta 120/240 volt or 240/480 volt three-phase 200 amp self-contained service shall be identified with orange tape in the meter base. The high leg shall be C phase (extreme right).

6.3.3 SERVICE CONDUCTORS (SELF-CONTAINED METERING)

- Ampacity of the service conductors shall be sized per the NEC by the customer/member or his electrician.
- Either copper or aluminum conductors permitted, but a mixture of both is not permitted.
- Splices are not allowed in service conductors between the secondary connection point and the meter base terminals.
- If applicable, provide Burndy Hylug type YA-A compression type fittings, or approved equal, for all service conductors: NEMA two-hole drilling as required to match transformer drilling.
- Treat all connections and fittings with anti-oxidant compound prior to compression and prior to tightening of bolted connection.
- Provide a minimum of size 2-1/2" schedule 40 PVC conduit for all service conductors between the secondary connection point and the meter base.

6.4 CURRENT TRANSFORMER METERING

Current Transformers (CT's) are used with instrument-rated meters to meter single-phase services greater than 320 amps and three-phase services greater than 200 amps.

6.4.1 SIZING OF CURRENT TRANSFORMERS

The CT's will be sized based on the load summary provided by the customer/member's electrician. When a single service is metered through CT's, and the minimum demand as determined by PL&W during a six-month period is less than 20 percent or greater than 80 percent of the CT nameplate rating, the customer/member may be required, at his/her own expense, to have PL&W replace the existing CT's with correctly sized CT's.

6.4.2 CUSTOMER RESPONSIBILITY

The customer/member shall install all equipment beyond the secondary connection point. This includes but is not limited to:

- PL&W-supplied meter sockets & current transformers (CT's),
- Customer-supplied cabinets and enclosures for the meter and CT's,
- Customer-supplied connections, lugs, conduit, grounding, protection equipment, and wiring from the load to the CT mounting base then to the secondary connection point.

Always check with PL&W for designated equipment locations.

6.4.3 PL&W RESPONSIBILITY

PL&W will provide bar type CT's that the customer/member shall install. These shall be mounted such that the H-1 polarity mark is oriented up and the source conductors shall be connected at this location. PL&W will provide and install the local wiring associated with meter, test switch, and CT's.

6.4.4 CL20 METER SOCKETS & BASE

The CL20 meter socket/base with test switch and associated local wiring shall be provided by PL&W and installed by the customer/member.

Single-phase services use a 6-jaw socket; Three-phase services use a 13-jaw meter base. Both shall have provisions for test switches and must be connected by a 1¼ inch rigid PVC or EMT conduit (with pull string) within 20 feet of the CT cabinet.

The cost of the PL&W-supplied equipment will be included in the estimated project fee. See Section 5.3 for details.

6.4.5 CURRENT TRANSFORMER CABINET

The customer/member shall provide and install an enclosure (cabinet) for the current transformers and the necessary conduit connecting the CT cabinet to the meter base.

The CT cabinet is to be metal, NEMA 3R rated, and securely mounted on a fixed surface. The top of the cabinet must be no higher than 7 feet above grade and the bottom of the cabinet must be at least 6 inches above final grade (See Figure IV). The metering and CT cabinet shall be located per Section 6.2.3.

Service size shall determine CT cabinet required dimensions. Refer to the following table.

SERVICE SIZE	NUM OF CT's	WIDTH	HEIGHT	DEPTH
1Φ, 400-800A	2	30"	48"	11"
3Φ, 200-1200A	3	36"	48"	11"
OVER 1200A	REQUIRES SWITCHBOARD			

CT enclosures shall be equivalent to Circle AW 243611RTCT for single-phase and Circle AW 304811HRTCT for three-phase. The CT enclosure shall have grounding provisions for bonding the meter base to the CT enclosure with a #12 AWG grounding conductor. The primary neutral conductor (in the CT enclosure) shall be terminated on an isolated neutral bus bar, which shall have provisions for connecting a #12 AWG neutral conductor from the meter base. The 1 ¼ inch rigid or EMT conduit (with pull string) between the CT enclosure and the meter socket shall not exceed 20 feet in length.

If Applicable, the high (wild) leg of a tapped delta 120/240 volt or 240/480 volt three-phase service shall be identified with orange tape in the meter base and the CT enclosure. The high leg shall be C phase (extreme right).

6.4.6 SERVICE CONDUCTORS (CT METERING)

- Ampacity of the service conductors shall be sized per the NEC by the customer/member or his electrician.
- Limit the number of parallel conductors per phase to four (unless otherwise authorized by PL&W).
- Limit size of any service conductor to 750KCM. Either copper or aluminum conductors permitted, but mixture not permitted.
- Splices are not permitted in cable between the secondary connection point and the CT terminals.
- Provide Burndy Hylug type YA-A compression type fittings, or approved equal, for all service conductors: NEMA two-hole drilling as required to match transformer and CT bus drilling.
- Treat all connections and fittings with anti-oxidant compound prior to compression and prior to tightening of bolted connection.
- Customer/member shall provide and install a minimum of size 2-1/2" schedule 40 PVC conduit for all service conductors between the secondary connection point and the CT enclosure.

SERVICE REQUIREMENT DRAWINGS

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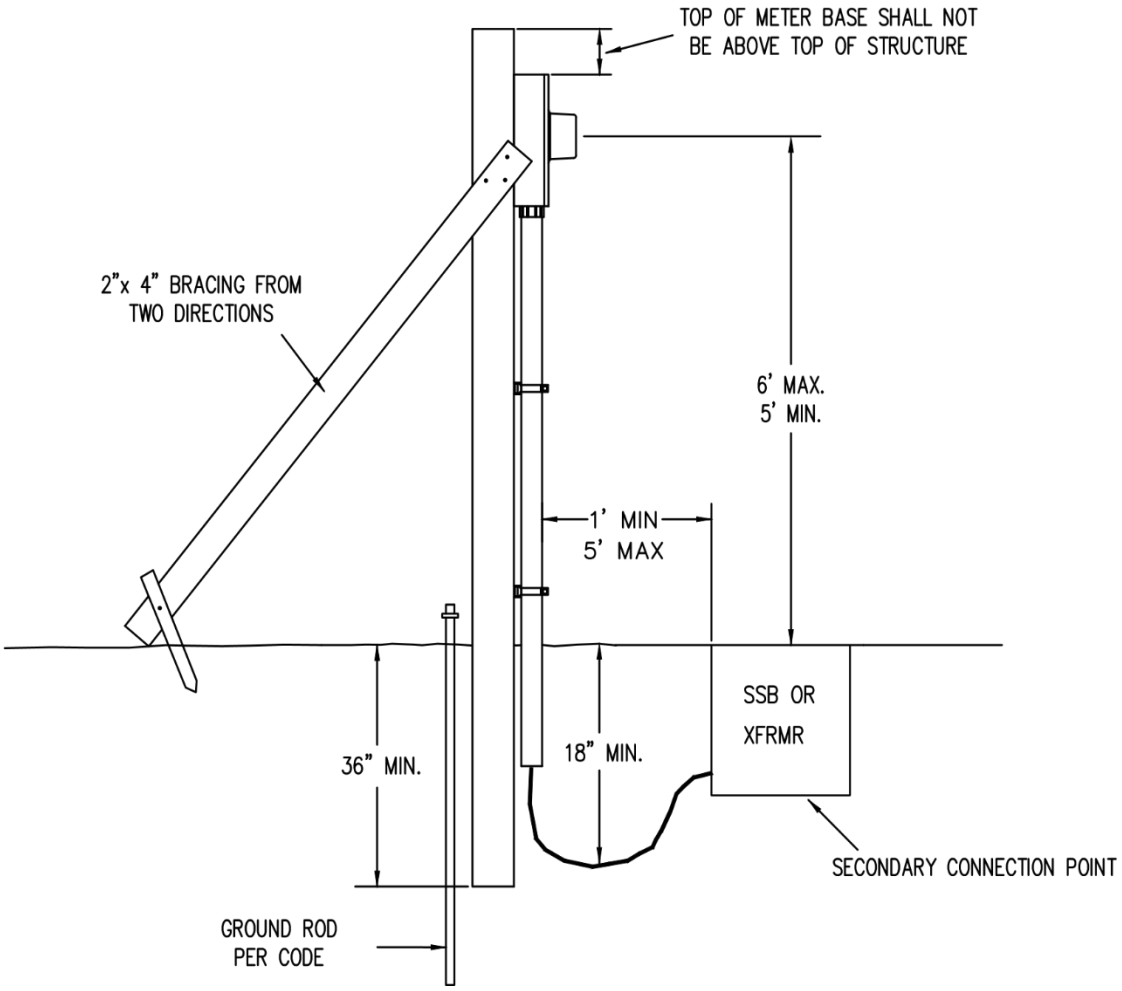
Revised 1/4/2018

TEMPORARY ELECTRIC SERVICE

(POST/PEDISTAL MOUNTED)



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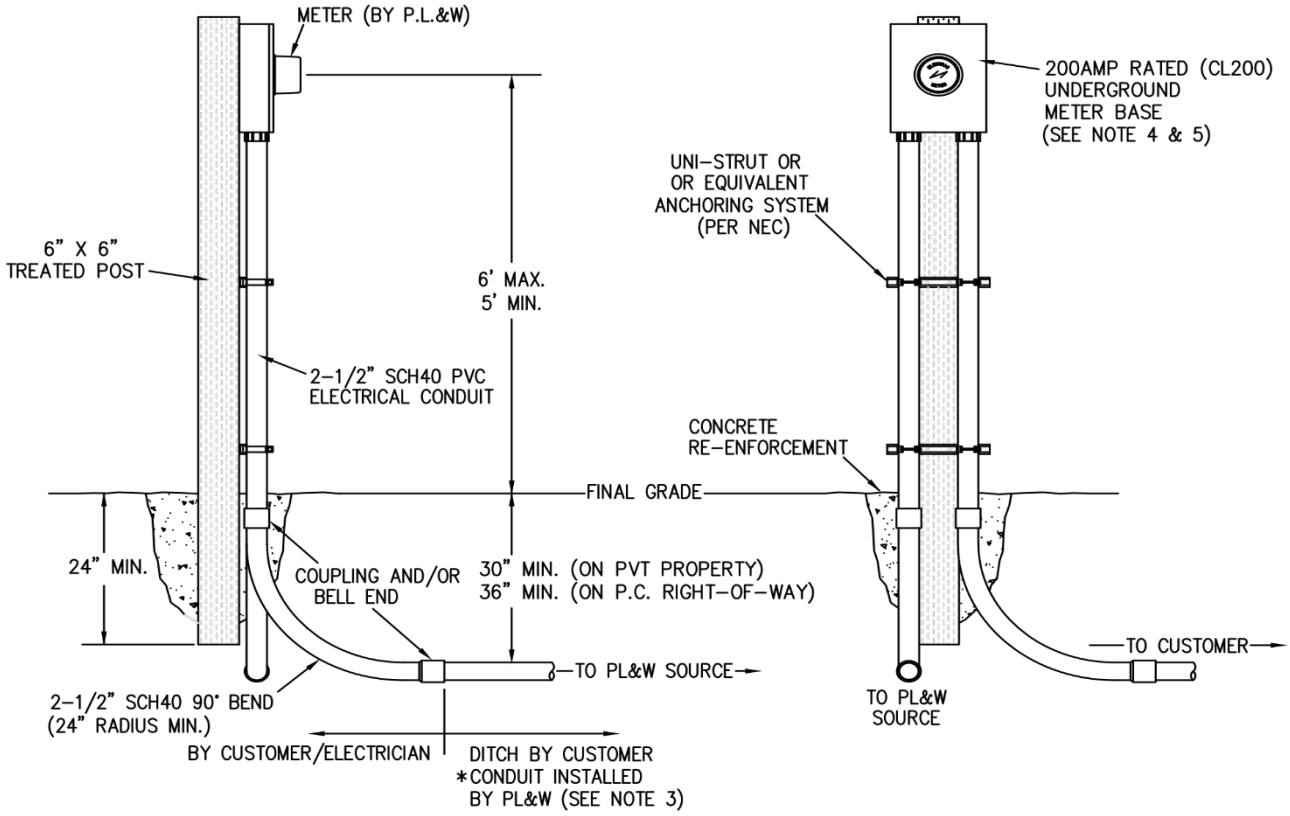
Revised 1/4/2018

POST/PEDISTAL MOUNTED RESIDENTIAL AND COMMERCIAL SELF CONTAINED 200/320 AMP ELECTRIC SERVICE 1Ø (SINGLE PHASE) & 3Ø (THREE PHASE)

200 AMP SHOWN



NOTE:

1. ALL GROUNDING TO BE PER NEC.
2. L&I INSPECTION REQUIRED PRIOR TO CONNECTION BY PL&W.
3. COMMERCIAL CUSTOMERS INSTALL CONDUIT & CONDUCTOR FROM THE METER BASE TO THE PL&W TRANSFORMER OR SSB.
4. REQUIRES 4-JAW METER BASE FOR 1⌀ (SINGLE-PHASE) APPLICATIONS.
5. REQUIRES 7-JAW METER BASE WITH LEVER BYPASS MECHANISM FOR 3⌀ (THREE-PHASE) APPLICATIONS.
6. TYPICAL 200A SERVICE CABLE IS 4/0

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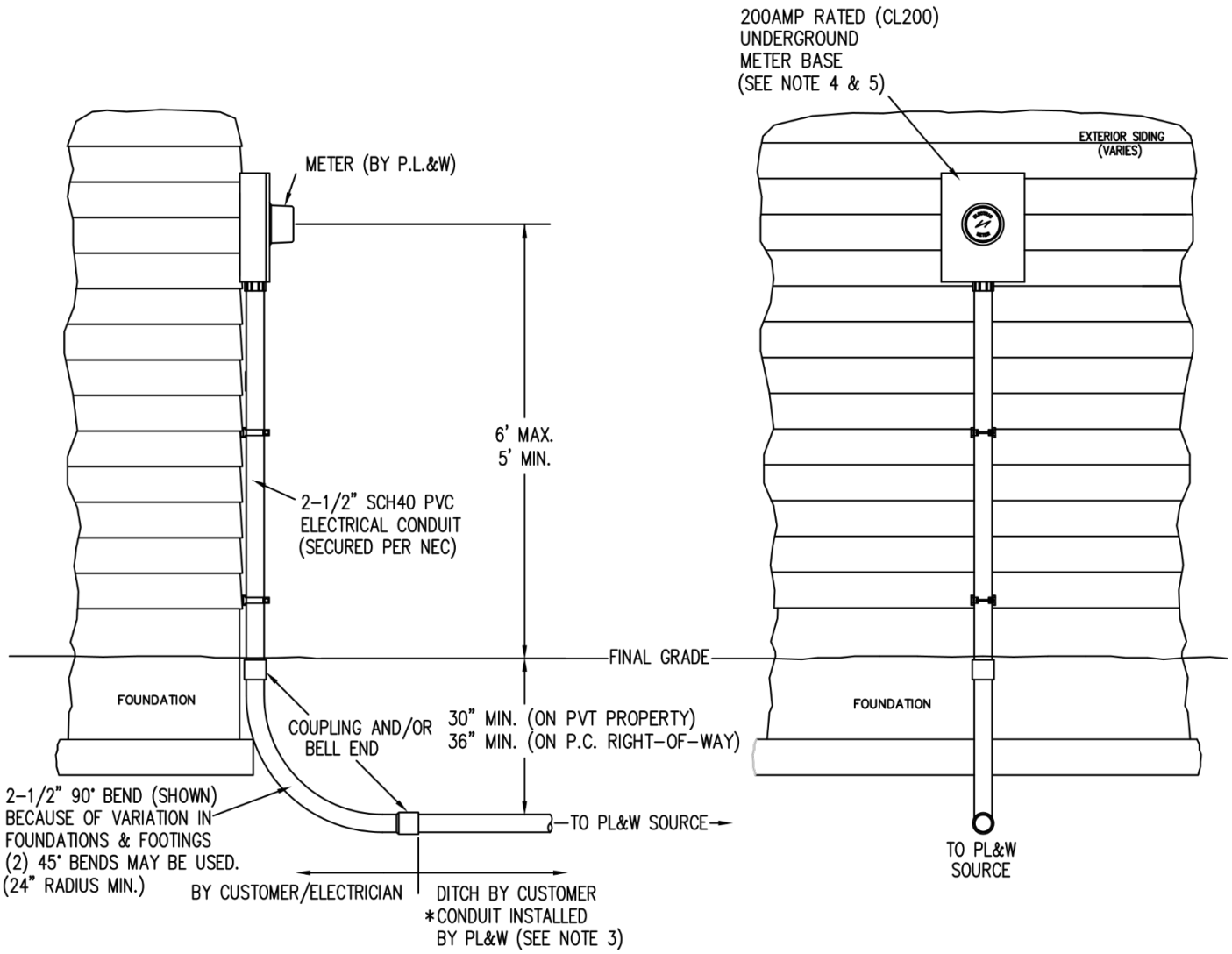
STRUCTURE MOUNTED RESIDENTIAL & COMMERCIAL
SELF CONTAINED 200/320 AMP ELECTRIC SERVICE
1Ø (SINGLE-PHASE) & 3Ø (THREE-PHASE)
200 AMP SHOWN



NOTE:
1. ALL GROUNDING TO BE PER NEC.
2. L&I INSPECTION REQUIRED PRIOR TO CONNECTION BY PL&W.
3. COMMERCIAL CUSTOMERS INSTALL CONDUIT & CONDUCTOR FROM THE METER BASE TO THE PL&W TRANSFORMER OR SSB.
4. REQUIRES 4-JAW METER BASE FOR 1∅ (SINGLE-PHASE) APPLICATIONS.
5. REQUIRES 7-JAW METER BASE WITH LEVER BYPASS MECHANISM FOR 3∅ (THREE-PHASE) APPLICATIONS.
6. TYPICAL 200A SERVICE CABLE IS 4/0

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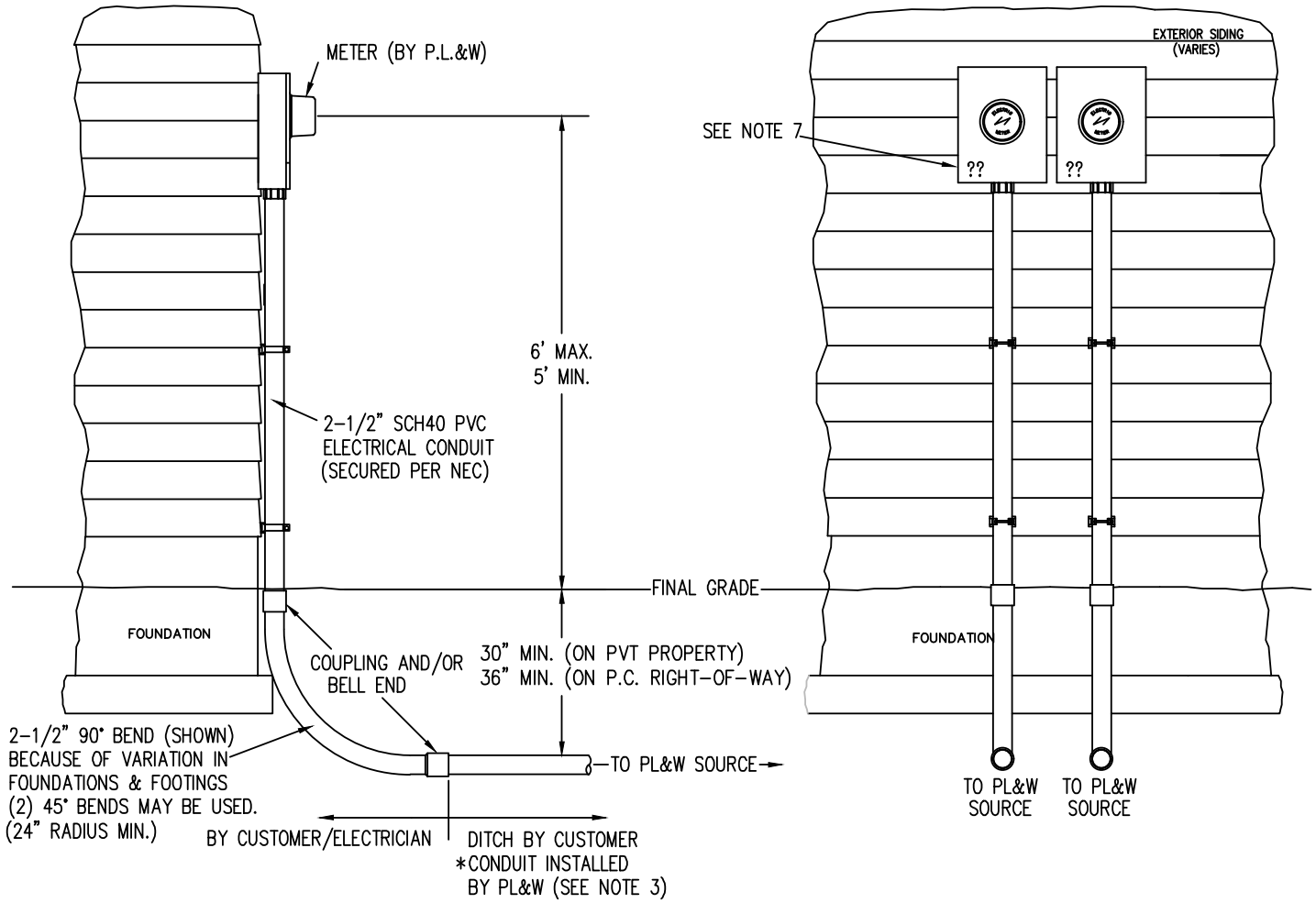
RESIDENTIAL & COMMERCIAL
SELF CONTAINED 200 AMP "DUPLEX" ELECTRIC SERVICE
1Ø (SINGLE-PHASE) ONLY
(STRUCTURE MOUNTED)



NOTE:
1. ALL GROUNDING TO BE PER NEC.
2. L&I INSPECTION REQUIRED PRIOR TO CONNECTION BY PL&W.
3. COMMERCIAL CUSTOMERS INSTALL CONDUIT & CONDUCTOR FROM THE METER BASE TO THE PL&W TRANSFORMER OR SSB.
4. REQUIRES 4-JAW METER BASE FOR 1ϕ (SINGLE-PHASE) APPLICATIONS.
5. REQUIRES 7-JAW METER BASE WITH LEVER BYPASS MECHANISM FOR 3ϕ (THREE-PHASE) APPLICATIONS.
6. TYPICAL 200A SERVICE CABLE IS 4/0
7. MINIMUM OF 1" TALL NUMBERS/LETTERS TO BE PERMANENTLY AFFIXED BELOW THE METER SOCKET SERVICING THAT ADDRESS AND/OR UNIT. (MUST BE COMPLETED PRIOR TO PL&W ENERGIZING SERVICE)

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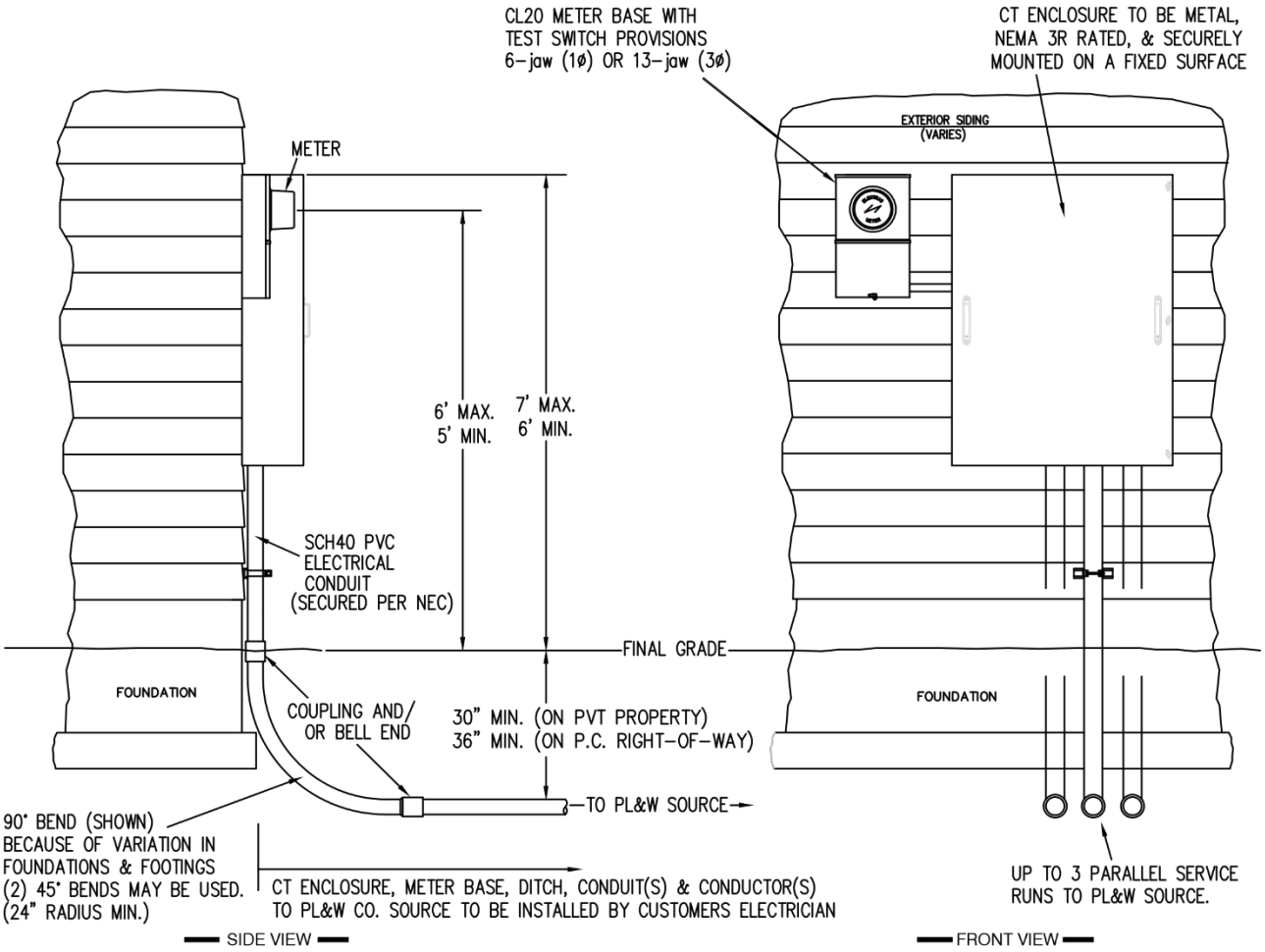
Revised 3-25-2026

RESIDENTIAL & COMMERCIAL
CURRENT TRANSFORMER (CT) METERING
1Ø (SINGLE-PHASE SERVICES) 400 AMPS OR GREATER
3Ø (THREE-PHASE SERVICES) GREATER THAN 200 AMPS



CT ENCLOSURE SIZING TABLE

SERVICE SIZE	NUMBER OF CT's	WIDTH	HEIGHT	DEPTH
1–PHASE, 400–800 AMPS	2	30"	48"	11"
3–PHASE, 200–1200 AMPS	3	36"	48"	11"
OVER 1200 AMPS	REQUIRES SWITCHBOARD			

NOTE:
1. ALL GROUNDING TO BE PER NEC.
2. L&I INSPECTION REQUIRED PRIOR TO CONNECTION BY PL&W.
3. CUSTOMER INSTALLS CONDUIT & CONDUCTOR FROM THE METER BASE TO THE PL&W TRANSFORMER.
4. REQUIRES 6–JAW METER BASE FOR 1∅ (SINGLE–PHASE) & 13–JAW METER BASE FOR 3∅ (THREE–PHASE) APPLICATIONS. BOTH TO HAVE TEST SWITCH PROVISIONS.

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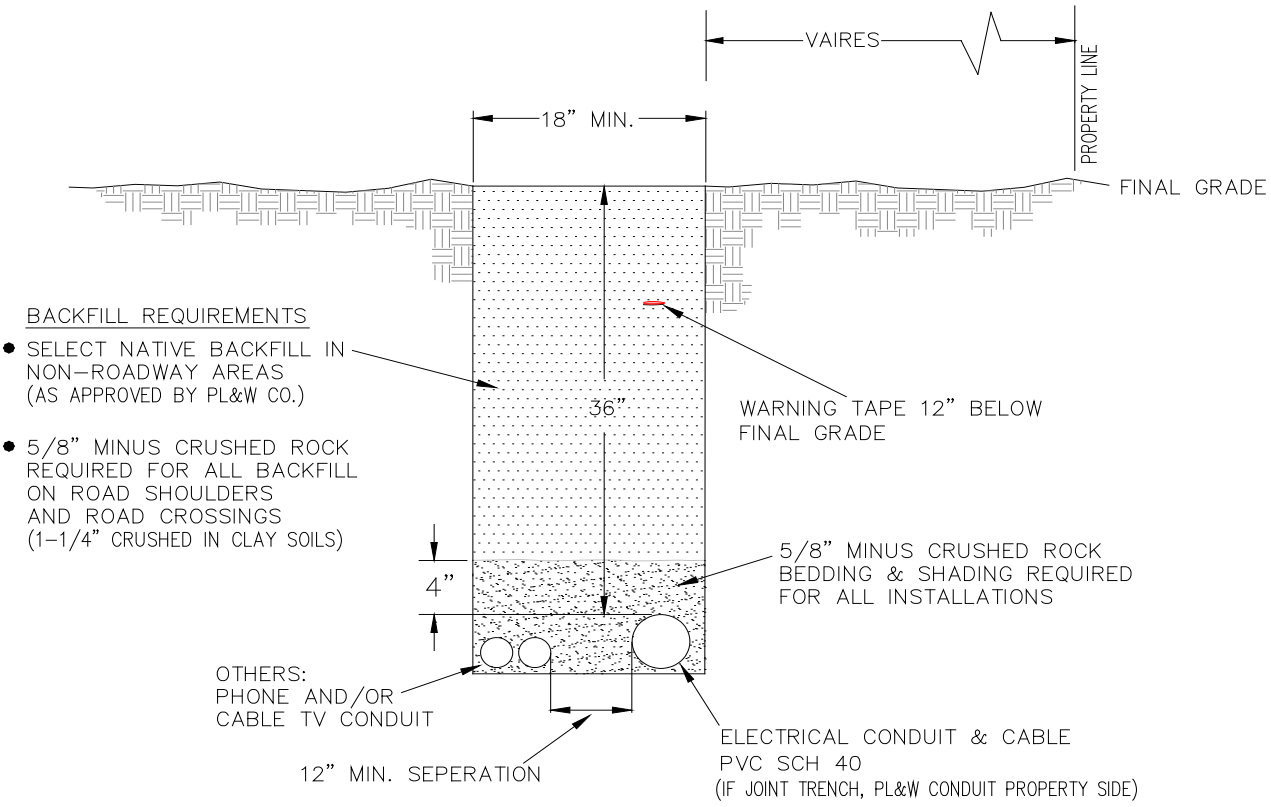
TRENCH REQUIREMENTS
(STANDARD P_E 101)



NOTE:

L&I/NEC REQUIREMENTS SUPERCEDE THIS

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