

# FRANKLIN PUBLIC UTILITY DISTRICT



JANUARY 2025

## ELECTRICAL SERVICE REQUIREMENTS

Engineering Department - 509-547-0556

Main Line - 509-547-5591

Email - [engineering@franklinpud.com](mailto:engineering@franklinpud.com)



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## SECTION 1. CONTACT INFORMATION

### 1.1 Franklin PUD Engineering Department

1411 W Clark St, Pasco, WA .....509-547-0556

Fax .....509-547-3950

### 1.2 Franklin PUD Operations Department

2103 N 4th Ave, Pasco, WA .....509-546-5975

Fax .....509-545-2077

### 1.3 Department of Labor and Industries (L&I) Electrical Inspection

4310 W 24th Ave, Kennewick, WA .....509-735-0100

Fax .....509-735-0120

Toll-Free .....800-547-9411

24-hour Inspection Request .....509-735-0148

Website: ..... [www.lni.wa.gov/tradeslicensing/electrical](http://www.lni.wa.gov/tradeslicensing/electrical)

### 1.4 Call Before You Dig



To get a locate, call 811 two full working days before the start of excavation. At no charge, utilities will mark their utilities on your property. This process is required by law. You can be liable for any damages to underground facilities by failing to call for locates. The excavator will mark the area where digging will occur with white paint to identify the location for utility locators. Washington State requires that any digging with 24 inches on either side of the location markings be done by hand.

Utilities Underground Locate Center (UULC) .....811

Toll-Free .....800-424-5555

Website ..... [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org)

**The color markings are designated to identify the utilities as follows:**

|   |                               |   |                              |
|---|-------------------------------|---|------------------------------|
|  | RED: Electric Lines or Cables |  | PURPLE: Reclaimed water      |
|  | GREEN: Sewer/Drains           |  | ORANGE: Telephone/Cable TV   |
|  | YELLOW: Gas/Oil               |  | PINK: Temporary Service Area |
|  | BLUE: Water                   |  | WHITE: Proposed Excavation   |



## SECTION 2. GENERAL INFORMATION

These requirements are intended to aid contractors, electricians, engineers, and customers in installing underground or overhead electrical service facilities within planned communities, platted subdivisions, etc. within Franklin PUD's (FPUD) service territory. Customers are encouraged to contact Franklin PUD's Engineering Department early in the planning process to determine availability, location, condition of services, easements, line extensions, and applicable fees and contracts.

This document also summarizes the applicable practices and policies that will be followed to ensure that all FPUD customers receive uniform and equitable consideration when acquiring electric services.

Information contained within this document is based on state and national codes and is subject to change. Deviations from these guidelines must be pre-approved by FPUD's Engineering Department. Franklin PUD should be consulted in case of doubt on the applicability of any item.

### 2.1 Service Voltage

Electrical service is available at 60 hertz, alternating current, single or three-phase. The standard voltages supplied by Franklin PUD to its customers are shown below.

1. Single phase, 120/240 volts
2. Three phase, 120/208 volts
3. Three phase, 277/480 volts

Service may be provided by either overhead or underground. For residential services, 3-phase and other voltages may be supplied where FPUD facilities are available.

### 2.2 Codes and Standards

The construction of a new or upgraded service or installation shall conform to the current applicable provisions of the National Electric Code, National Electrical Safety Code, Federal and State regulations, and Franklin PUD Rules and Regulations.

### 2.3 Right-of-Way, Easements, and Permits

Franklin PUD may require the execution of an easement or easements, providing adequate right-of-way for the construction and maintenance of the primary and secondary lines. If necessary, Franklin PUD will provide the forms required to grant necessary easements and shall be named on all utility easements for the subdivision or plat. Subdivisions and plats must be approved and recorded by the respective city or county.

The customer must obtain signatures from all property owners using Franklin PUD's documents for all required easements. Any expenses incurred are the customer's responsibility. When there is any challenge to Franklin PUD's right to install facilities on land others own, it will be the obligation of the applicant (customer) to resolve such a challenge to Franklin PUD's satisfaction before beginning any primary or secondary line

extension. Easements are to be kept clear of all obstacles restricting access for maintaining the electrical facilities.

**State Electrical Permit:**

Washington State Department of Labor & Industries – **See Section 1—Contact Information.**

## SECTION 3. RESIDENTIAL SERVICE REQUIREMENTS

### 3.1 Preparing for New Electrical Service

To avoid unnecessary delays in completing the service installation, customers should complete a Request for Residential Electrical Service Application along with a site plan showing the meter location and submit to via email to [engapplications@franklinpud.com](mailto:engapplications@franklinpud.com) or in person at Franklin PUD office located at 1411 W Clark. St., Pasco, WA. Residential services will be 120/240-volt, single-phase service, 3-phase, and other voltages may be supplied where Franklin PUD facilities are available. Customers should contact the Franklin PUD Engineering Department at 509-547-0556 with any questions.

### 3.2 Your Service Order

A Franklin PUD Engineering Department representative will visit the installation site if needed, design the necessary facilities, prepare a service order for materials and construction, and generate an invoice covering all of Franklin PUD's labor, equipment, and material costs. Please note that Franklin PUD may need to assess fees, or you may need to sign an easement agreement before construction. A Franklin PUD Engineer will contact you with details if either of these requirements are necessary.

### 3.3 Beginning Construction

**After** receiving notification of service approval from the Department of Labor and Industries and once all necessary fees, inspections, and approvals have been received, the customer should allow 5 – 7 working days to connect new services. Franklin PUD will make every effort to expedite the request. However, several factors influence the process, including weather, site preparation, and the availability of workforce and materials.

### 3.4 Installation & Material Specifications

Conduit runs over 175 feet may require special conduit sweeps unless prior approval is obtained from the FPUD Engineering Department. A maximum total of 270 degrees of sweeps (elbows) are allowed (90 degrees at the service location, 90 degrees in the trench, and 90 degrees at the meter base). If more than 270 degrees of sweeps are required, a pull box must be installed, or the trench must be rerouted at FPUD's discretion.

### 3.5 Grading

The final grade should be established before trenching and installing the conduit or vaults. If the final grade is not established before conduit and vault excavation, grade stakes shall be installed for reference. Any changes in the grade that would put the conduits, vaults, or pull boxes at a depth less than required or leave any installation in an undesirable condition would require the customer to make corrections at their expense. The height to the center of the meter base must be met for both the construction grade when the meter and service conductor are installed and at the final grade.

### **3.6 Excavation**

Excavating should be done only when necessary to install the conduit and vault system. Trenches for underground conduits must be actual to line and grade, as shown on the drawings and specifications included at the end of Section 3. Trenches shall be wide enough to allow separation requirements for other utilities if needed. Utility trenches shall be free of standing water, excess rock, earth, and debris when installing electrical conduits and vaults.

### **3.7 Conduit**

The underground conduit must be gray Polyvinyl Chloride (PVC) Schedule 40, conform to NEMA TC2 Specifications, and be permanently marked at regular intervals with the manufacturer's name or symbol, size, "SCH 40" and "PVC". Conduit size will be determined by the FPUD Engineering Department (normally 3-inch, 4-inch, or 6-inch).

### **3.8 Couplers and Fittings**

They shall be PVC Schedule 40, factory-made, and conform to the exact specifications as the conduit. All sweeps (elbows) and fittings must have a minimum 36-inch center radius. Heat-bent angles shall not be allowed. Fiberglass sweeps may be required at the discretion of FPUD.

### **3.9 Installation of Conduit System**

Conduits shall run in a straight line. Standard sweeps, as specified above, may be used as required. Install couplings, connectors, and fittings to provide a rigid mechanical assembly with conduit cut square, reamed, and without burrs. Cement conduit joints as recommended by the manufacturer. Heat-bent angles will be rejected.

### **3.10 Conduit Bedding and Encasement**

A minimum of four (4) inches of bedding and four (4) inches of cover shall be used to encase the conduit when native material is deemed unacceptable by the Franklin PUD Engineering Department. The minimum depth from the finished grade to the bottom of the trench for the primary cable is forty-eight (48) inches and thirty-six (36) inches for secondary services. Secondary services requires forty-eight (48) inches depth for street crossings. Sand, clean soil, 5/8 minus crushed rock or pea gravel shall encase the conduit. Crushed stone or other similar aggregate with sharp points is NOT acceptable.

### **3.11 Inspections**

After installation of the conduit, pull boxes, and the four (4)-inch bedding beneath the conduit, call the FPUD Engineering Department at 509-547-0556 for an inspection before proceeding.

**Failure to obtain Franklin PUD approval before backfilling trenches will require exposing all or part of the conduit run for inspection before we install the wire.**



### **3.12 Backfill**

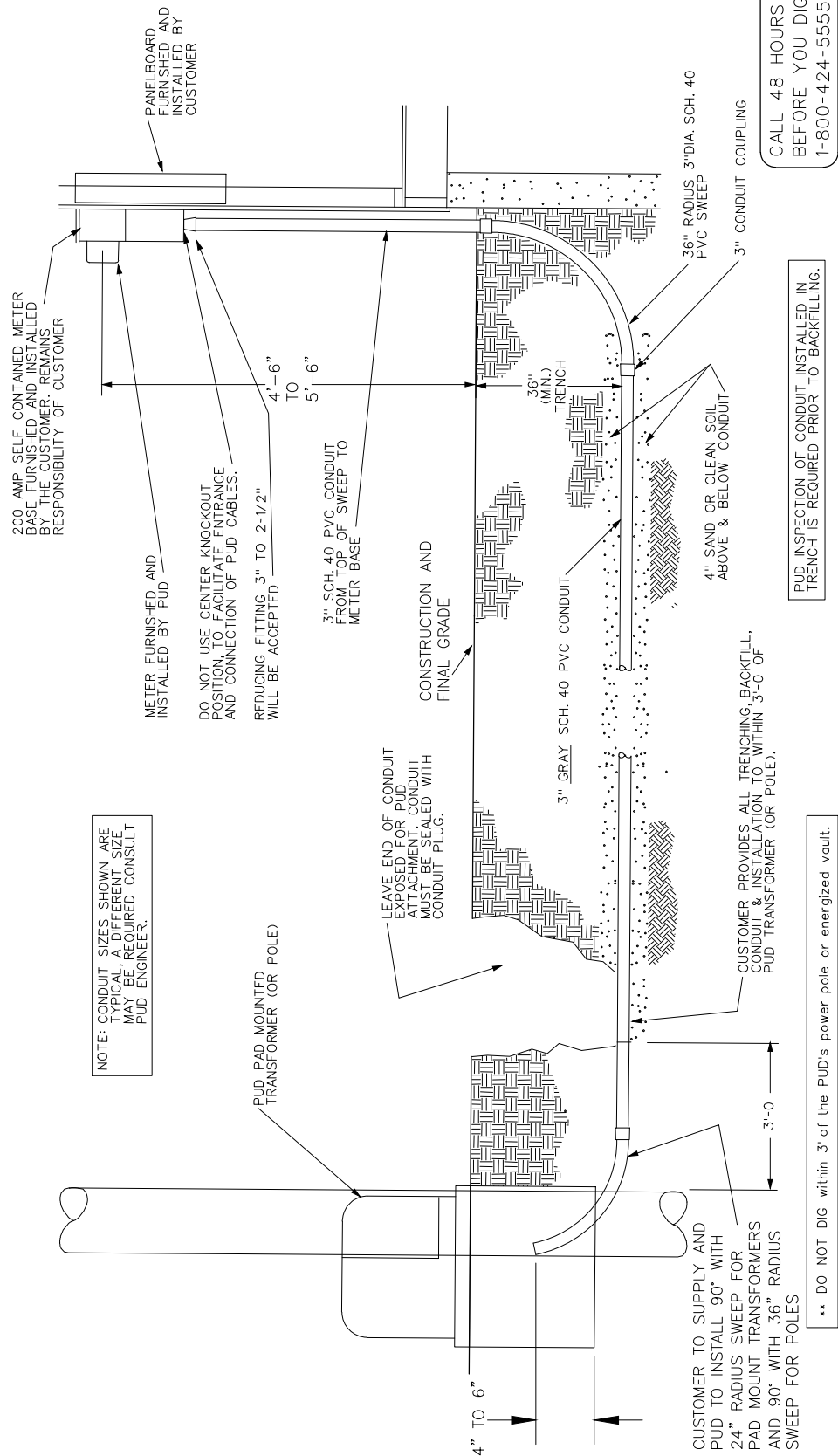
Excavation material may be used for backfilling only when it is free from frozen particles, rock, vegetation, or trash. Backfill should be placed uniformly in layers, and each layer should be thoroughly compacted. Leave ends of conduit exposed for FPUD crews to gain access. The conduit must be sealed with a factory-manufactured conduit plug.

### **3.13 Secondary Conductors**

Commercial secondary conductors should be installed into the transformer vault before installing the transformer. Secondary conductors must be limited to a maximum of eight (8) per phase. More than eight (8) conductors per phase may require the customer to provide a unique terminating cabinet. Customers should contact FPUD if more than eight (8) secondary conductors are needed per phase. Secondary conductors must extend a minimum of eight (8) feet above the transformer pad for commercial services.

### **3.14 Access to Equipment**

Where fences or other obstructions restrict 24-hour access to FPUD equipment, a key box or double locking gate will be required to allow FPUD personnel access using an FPUD key.



221.1.DWG

## TYPICAL 200A UNDERGROUND RESIDENTIAL SERVICE

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UPDATED: 11/21/2019

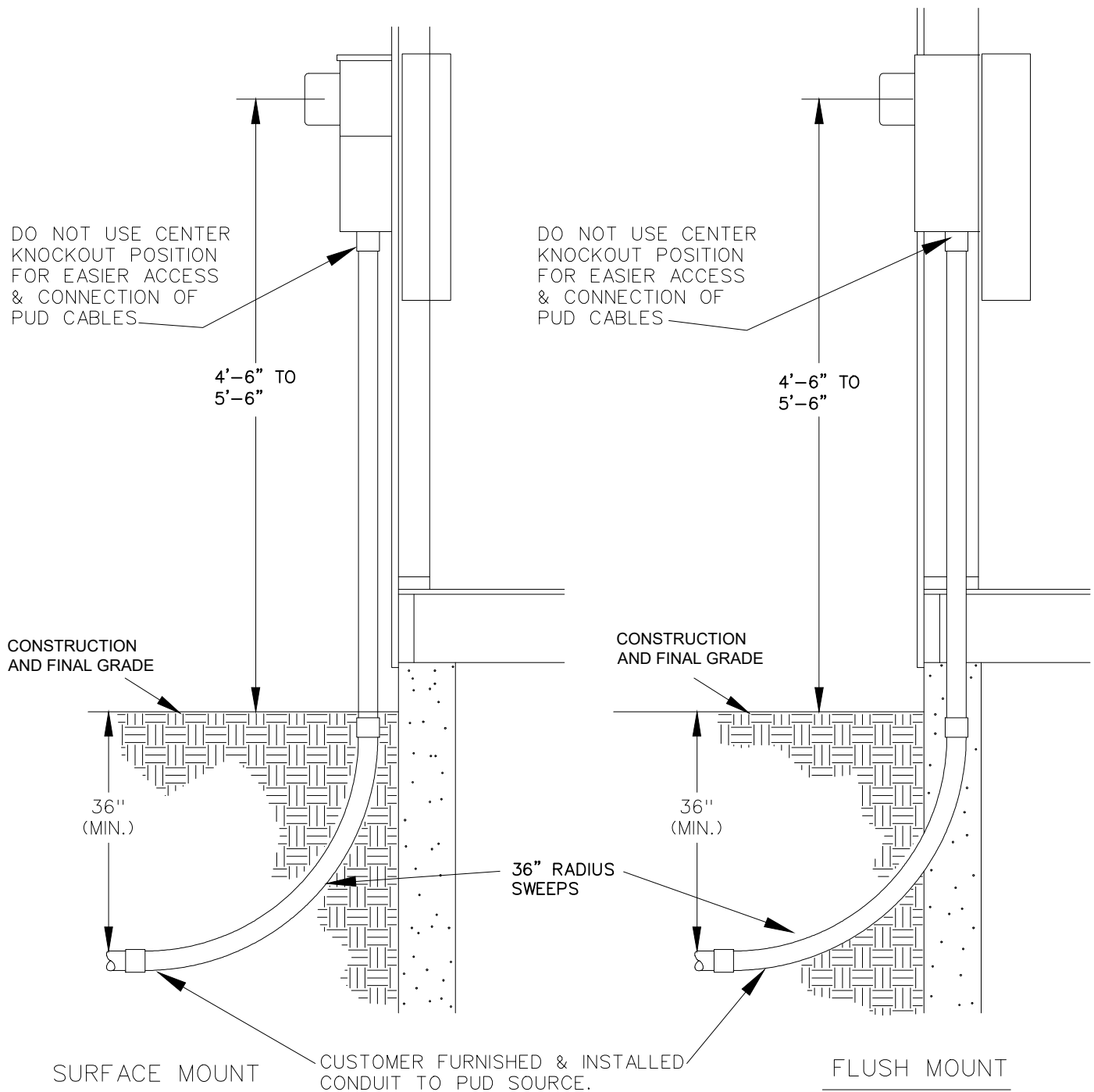
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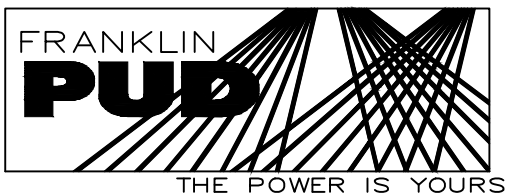
Page 9

## NOTES:

1. CUSTOMER FURNISHES ALL EXCAVATION AND MATERIALS. EXCEPT METER AND SERVICE CONDUCTOR.
2. CUSTOMER SERVICE EQUIPMENT NEEDS TO BE INSPECTED AND "APPROVED FOR SERVICE" BY THE STATE ELECTRICAL INSPECTOR PRIOR TO CONNECTION BY THE PUD. SERVICE EQUIPMENT MAINTENANCE REMAINS CUSTOMER'S RESPONSIBILITY.
3. REFER TO "RESIDENTIAL SERVICE UNDERGROUND LINE EXTENSION GUIDE" FOR TRENCHING AND CONDUIT INSTALLATION DETAILS.
4. PUD SERVICE CONDUCTORS TERMINATE AT THE "LINE SIDE" METER BASE TERMINAL LUGS
5. TRENCH MUST BE COMPLETELY BACKFILLED FROM METERBASE BEFORE SERVICE IS PULLED & METER SET
6. CONDUIT SHALL NOT RUN UNDER THE HOUSE AND SHALL EXIT CONCRETE AS SOON AS PRACTICAL



225.1.DWG



## UNDERGROUND RESIDENTIAL SERVICE ENTRANCE 200 AMP OR SMALLER

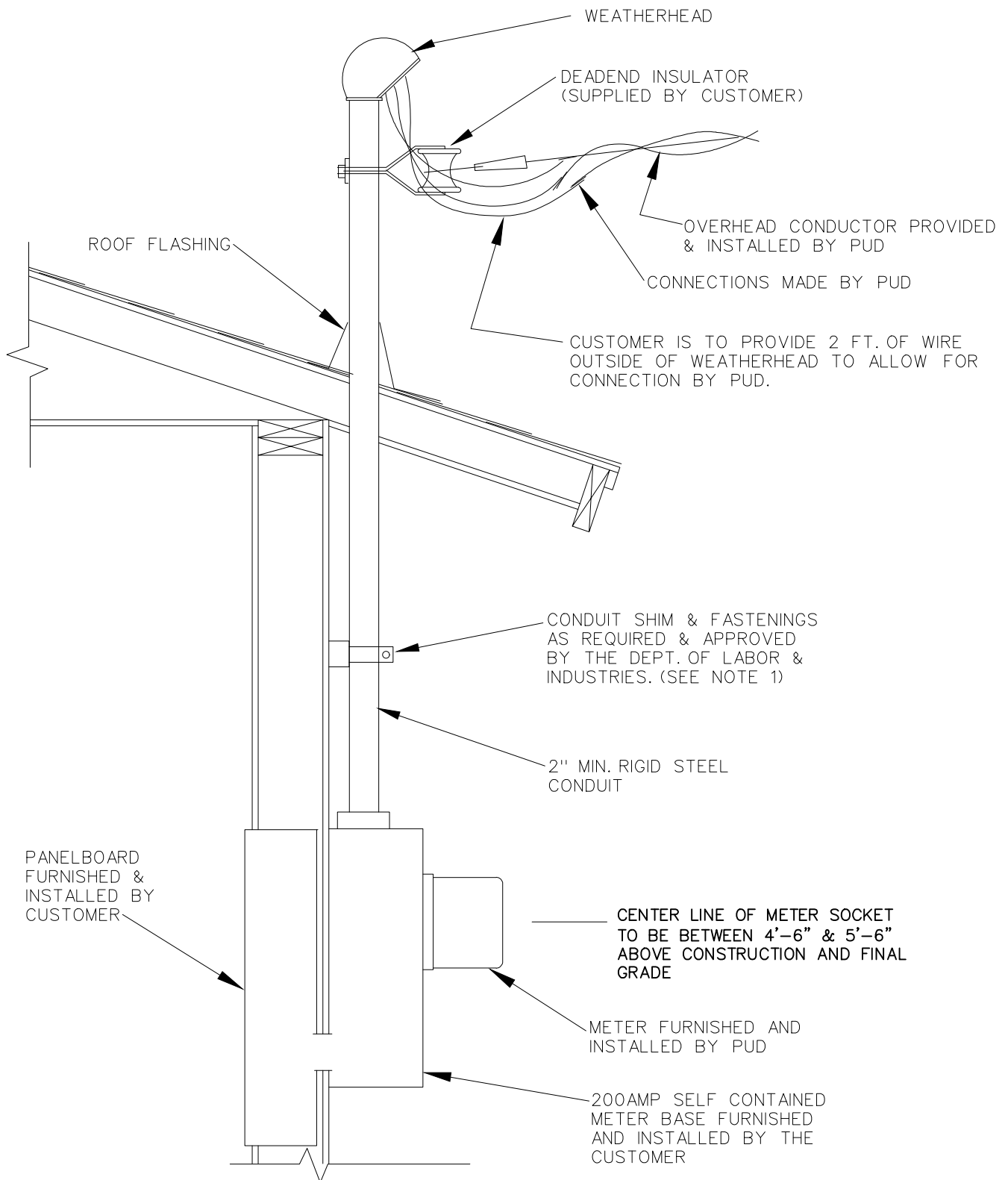
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UPDATED: 11/21/2019

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1. SEE CURRENT WASHINGTON STATE DEPARTMENT OF LABOR & INDUSTRIES SERVICE MAST DRAWINGS E-101, E-102 & E-103 FOR MORE DETAILED REQUIREMENTS.
2. CONSULT ALL OTHER AGENCIES THAT MAY ADMINISTER ANY CODES RELATING TO ELECTRICAL WIRING & INSTALLATION.

230.1.DWG



## OVERHEAD SERVICE MAST NOT OVER 26" HIGH

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APP. D. SAMS

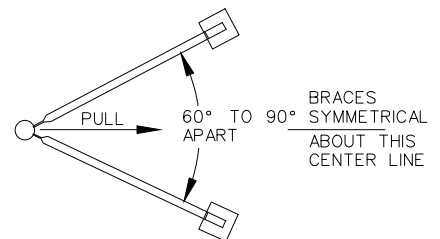
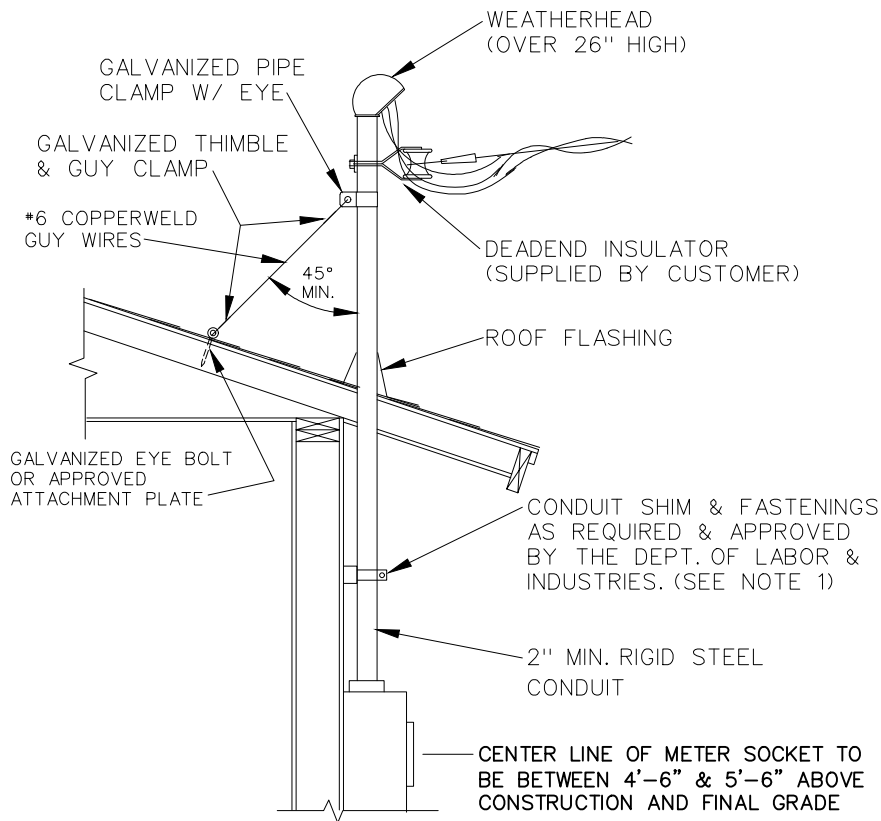
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UPDATED: 11/22/2019

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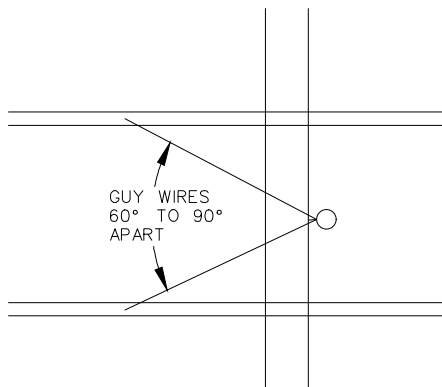
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Page 11

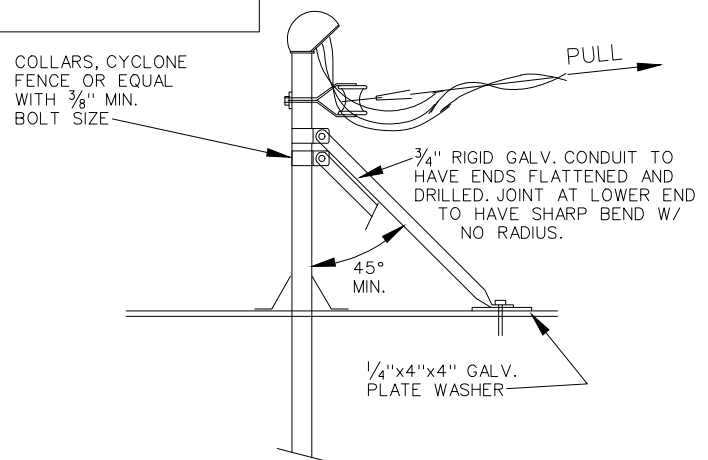




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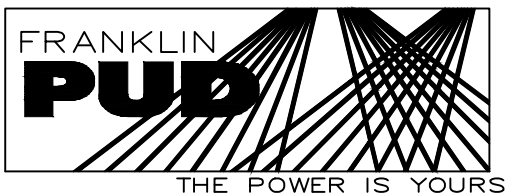
PLAN



GUYING - STIFF LEG TYPE

1. SEE CURRENT WASHINGTON STATE DEPARTMENT OF LABOR & INDUSTRIES SERVICE MAST DRAWINGS E-101, E-102 AND E-103 FOR MORE DETAILED REQUIREMENTS.
2. CONSULT ALL OTHER AGENCIES THAT MAY ADMINISTER ANY CODES RELATING TO ELECTRICAL WIRING AND INSTALLATION.

231.1.DWG



## OVERHEAD SERVICE MAST OVER 26" HIGH

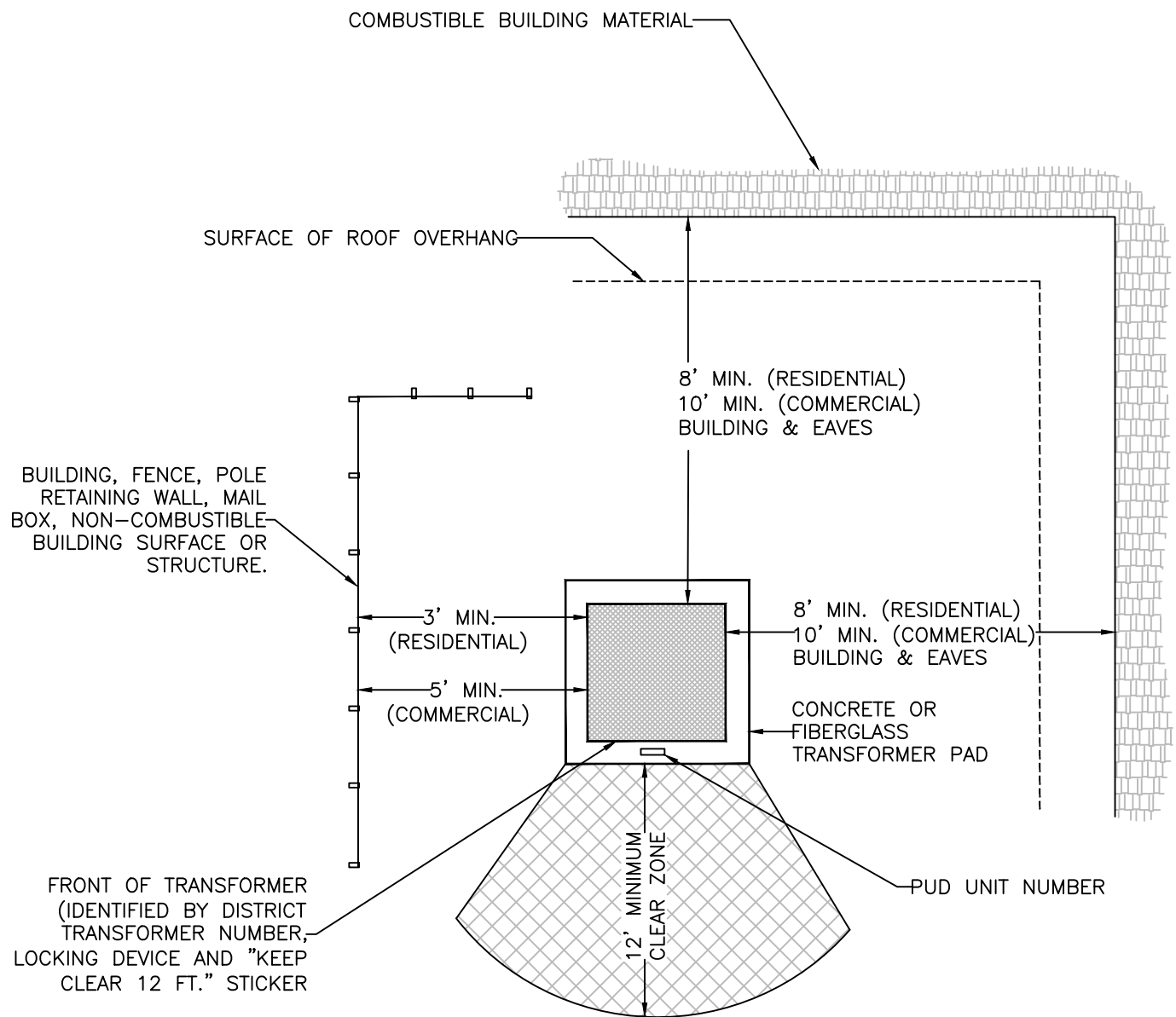
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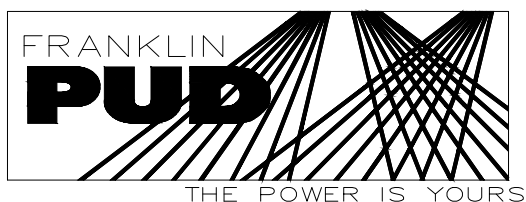
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Page 12



- NO OBSTRUCTIONS ALLOWED OVER TRANSFORMER.
- A MINIMUM 8 FT. CLEARANCE IS REQUIRED FROM ALL DOORS AND WINDOWS.
- DRAINAGE AT PADMOUNT TRANSFORMER MUST BE AWAY FROM BUILDING IN CASE OF OIL LEAKAGE.
- REFER TO LANDSCAPING GUIDELINES.

247.1.DWG



## TYPICAL TRANSFORMER CLEARANCES

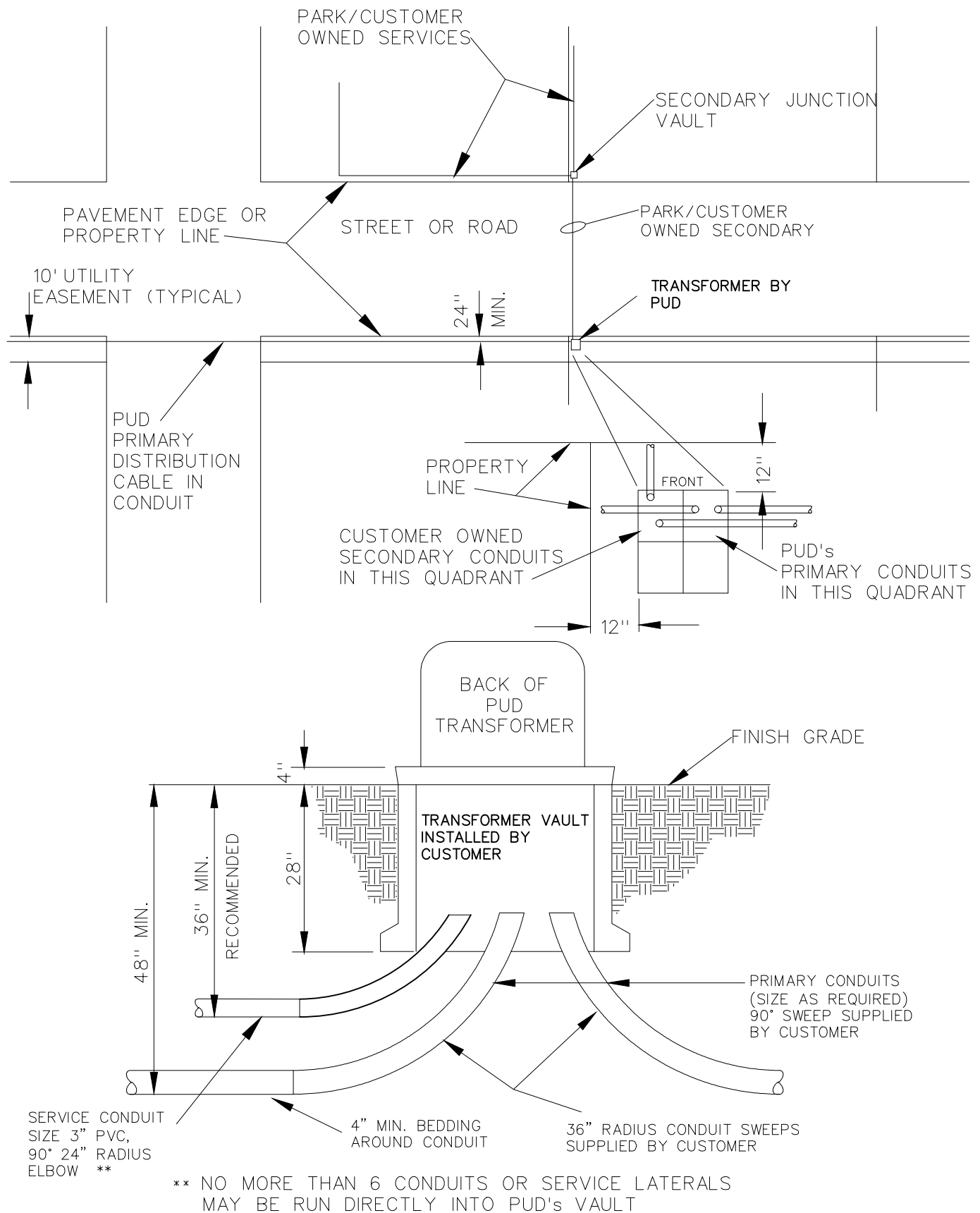
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271.4.DWG



## TYPICAL CONDUIT INSTALLATION FOR MOBILE HOME PARKS

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UPDATED: 11/22/2019

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## SECTION 4. TEMPORARY SERVICE REQUIREMENTS

### 4.1 Preparing for Temporary Electrical Service

Franklin PUD offers one (1) type of temporary metered service. There are two installations for temporary services: overhead and underground. To request a Residential or Commercial electrical service, customers should complete a Residential or Commercial Electric Service Request application and submit to the Franklin PUD Engineering Department who will determine the service's availability, location, and conditions.

State and local governments require that you obtain the following permits. When your temporary service has been approved, we can connect your service. **Please see Section 12. Fees and Charges.**

#### **State Electrical Permit:**

Washington State Department of Labor & Industries – **See Section 1- Contact Information.**

### 4.2 When Will the Service be Connected?

Once all the necessary fees, inspections, and approvals have been received, please allow 5 to 7 working days from the time Franklin PUD receives customer notification that the Department of Labor & Industries has approved the temporary service. Franklin PUD will make every effort to expedite your request. However, several factors influence the process, including weather, site preparation, and availability of workforce and materials.

### 4.3 Installation & Material - Overhead & Underground

#### **Meter Required**

The height must be a minimum of 4'-6" feet and a maximum of 5'-6" to the center of the meter.

#### **Temporary Service Poles**

Must be made of 4"x 4" solid lumber or two (2) 2"x 4" lumbers laminated together (4"x 4" overall is the minimum acceptable).

#### **Braces**

It shall be a minimum of 2" x 4" lumber. The customers will ensure that stakes are driven solidly into the ground and firmly attached to the braces and should take special care when installing braces to ensure they do not block access to the transformer.

### 4.4 Temporary – Underground Source

#### **Trench and Backfill**

After reviewing the details of the temporary service with a FPUD Engineering representative, the customer will provide a trench and backfill within three feet of the transformer. FPUD will trench and backfill the last three feet when the service is connected. The temporary meter base must be within 6-feet of the transformer or J-Box unless otherwise approved by Franklin PUD.



### **Conductor**

The customer will provide enough insulated conductors to reach the transformer, plus an additional six (6) feet for making connections. FPUD will route the customer's wire into the transformer box and make the connections.

**FPUD crew will not splice customer conductors. If the conductor is too short to connect to the transformer, the customer must replace it with a longer conductor before FPUD crew will connect it. Allow 5 to 7 business days for crews to return.**

## **4.5 Temporary – Overhead Source**

Please contact FPUD's Engineering Department at 509-547-0556 before installing service equipment.

### **Service Post**

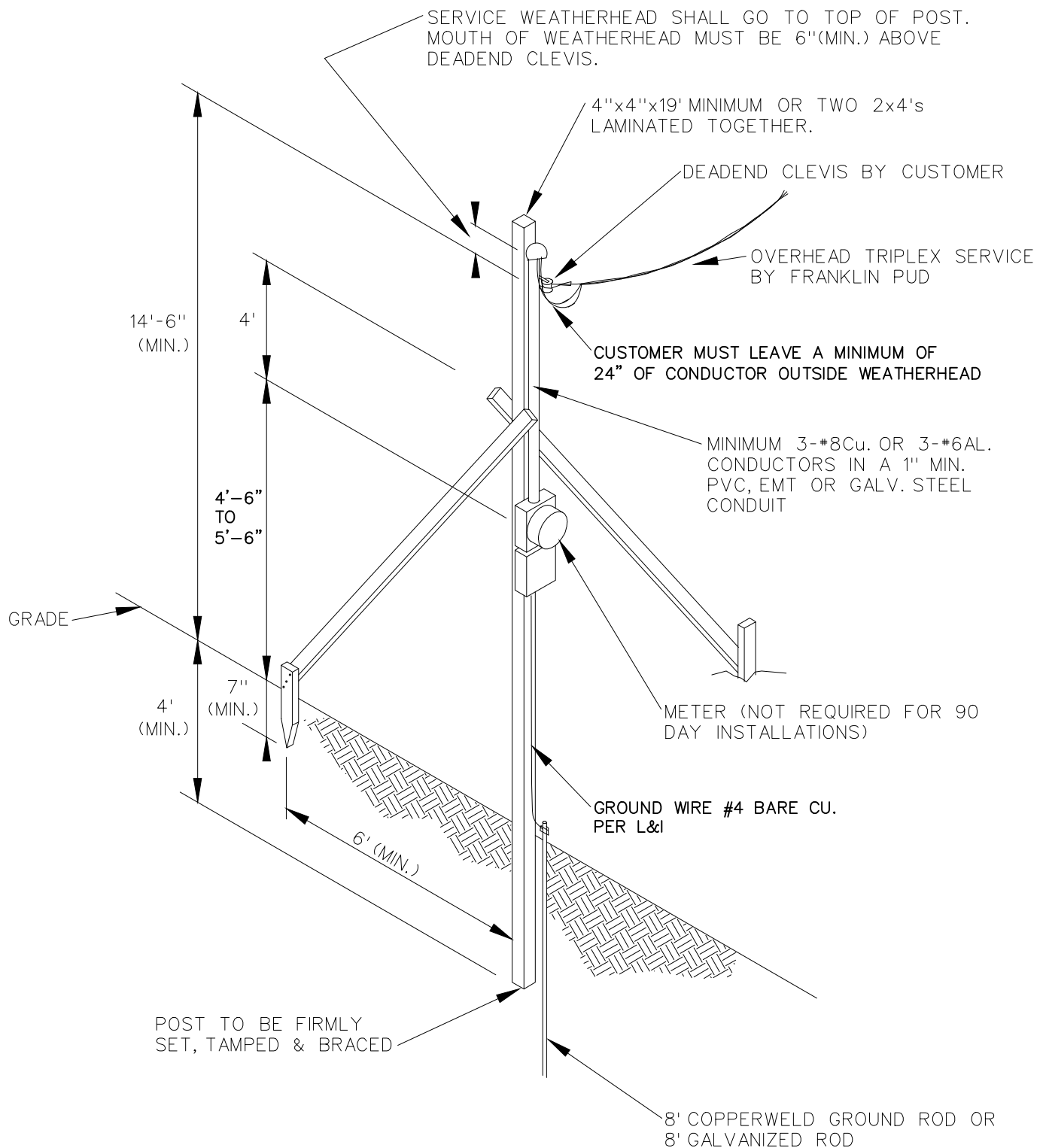
The customer will provide and install the service post and all materials. See drawings at the end of the Section 4. The service post must be located at least ten (10) feet, and no further than 50 feet, from our nearest distribution transformer pole.

### **Service Wire**

Franklin PUD provides and installs the overhead service wire as part of the service fee. Service length requirements that exceed 50 feet must have prior approval from FPUD's Engineering .

Overhead service clearance requirements include:

- 16 feet minimum over private ground, including driveways,
- 18 feet over streets and alleys,
- 24 feet over state highways.



NOTE: INSTALL TEMPORARY SERVICE POLE AT LEAST 10FT., BUT NO MORE THAN 50FT., FROM THE PUD'S DISTRIBUTION POLE.

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## TEMPORARY SERVICE REQUIREMENTS FOR OVERHEAD SOURCE

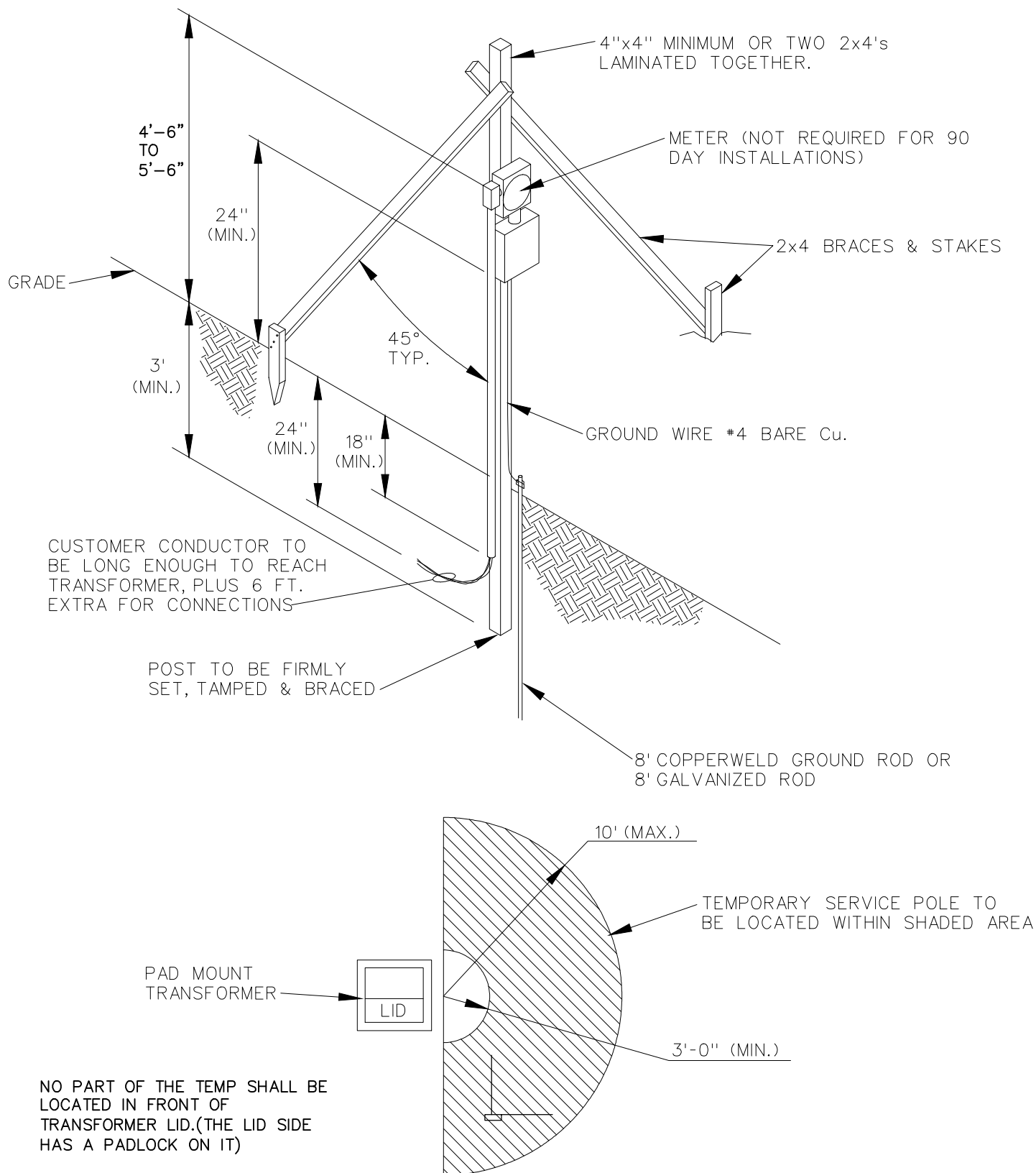
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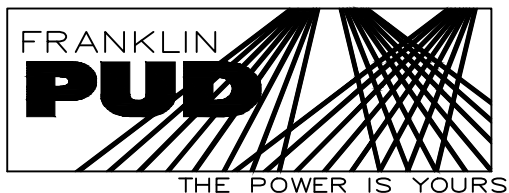
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## TEMPORARY SERVICE REQUIREMENTS FOR UNDERGROUND SOURCE

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UPDATED: 11/21/2019

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## SECTION 5. COMMERCIAL SERVICE REQUIREMENTS

### 5.1 Preparing for New Electrical Service

To avoid unnecessary delays in completing the service installation, customers should provide the following:

- Completed Request for Commercial Electrical Service Application
- A plot plan with the proposed meter base and transformer locations (AutoCAD file preferred).
- Depending on equipment requirements, Franklin PUD may require prepayment before ordering.

Taking into consideration customer's preferred transformer locations, Franklin PUD will provide the final transformer location(s) based on the engineering design analysis. Assistance is available by calling the Franklin PUD's Engineering Department at 509-547-0556.

FPUD may require the customer to use reduced starting voltage or other equivalent measures. Any variable frequency drives (VFD) or other equipment with harmonic content should be noted on the Request for Irrigation Electrical Service Application. Check with FPUD Engineering before purchasing VFDs. The FPUD Engineering Department representative will review the location of service, route, and other associated information with the customer.

### 5.2 Service Orders

A Franklin PUD Engineering representative will visit the construction site, design the necessary facilities, prepare a service order for materials and construction, and generate an invoice covering all Franklin PUD's labor, equipment, and material costs. If additional customer-furnished items are required, a Franklin PUD Engineering representative will review them with the customer as the job progresses.

The customer will be notified if additional fees or utility easements are needed before construction.

### 5.3 Permits Needed

All new construction, remodels, and upgrades shall conform to current and applicable provisions of the National Electrical Code, the National Electrical Safety Code, Federal and State regulations, and Franklin PUD's Rules & Regulations. State and local governments require that you obtain the following permits and notify us when a new service has been approved before connecting to Franklin PUD's system.

#### **State Electrical Permit**

Department of Labor & Industries – **See Contact Information in Section 1.**

## **5.4 Beginning Construction**

Once all the necessary fees, inspections, and approvals have been received, the customer should allow **5 to 7 working days** from receiving notification from the Department of Labor & Industries to connect a new service. Franklin PUD will make every effort to expedite your request. However, several factors influence the process, including weather, site preparation, and workforce and materials availability. The sooner the information is provided, the sooner the material can be ordered. Depending on transformer size and equipment requirements, Franklin PUD may require prepayment before ordering.

## **5.5 Installation & Material Specifications**

The cost of transformer(s), primary facilities, meter costs, overhead service conductor from pole to service mast (for overhead services only) and a service installation charge will be provided by Franklin PUD and reimbursed by the customer prior to the connection of the service. Franklin PUD will provide and install current transformers when required.

## **5.6 Customers Provide the Following**

All easements for primary lines and transformer(s), trenching, conduit, bedding, backfill, vaults, and vault installation for primary and secondary conductors. Additional items may be required after final loads are known and FPUD's design is finalized. When preliminary engineering design is complete, Franklin PUD will provide an estimate for the line extension fee. All line extension fees must be paid before Franklin PUD construction crews are scheduled.

### **Vaults and Lids**

After determining the transformer sizes, FPUD will provide specifications for the pad-mounted transformers, vaults, and lids.

### **Service Wire and Conduit**

All service wire and conduits from secondary bushings of transformer, or designated junction box, to the customer's electrical panel remains customer property and maintenance responsibility.

### **Meter Base**

Franklin PUD will provide the specific type of meter base after the load data is received. Franklin PUD will prewire your meter base before it is installed if a CT-type meter base is required. Contact Franklin PUD's Operations (509-546-5975) for availability and to schedule a time to exchange your meter base for one that is prewired.

**Note:** The meter base height requirement on drawings is to the center of the meter. The trench must be backfilled before service is pulled and the meter set.

### **CT Installations**

A continuous conduit run from the current transformer enclosure to the meter base is required (1" for 3-phase, 3/4" for 1-phase). The conduit shall not be longer than 25 feet and must be rigid galvanized steel.

For CT installations where current transformers are mounted inside FPUD transformers, the conduit shall enter on the low voltage side.

**Current Transformer (CT) Enclosure**

Franklin PUD will supply and install the current transformers at the customer's cost.

**Equipment Access**

Franklin PUD personnel must have 24-hour access to equipment using a key box or double-locking gate. Contact a Franklin PUD Engineering representative for specifics about access equipment.

**Special Materials**

Delivery time for unique materials or transformers depends on supply and demand. Orders could take six months or longer.

**5.7 3-Phase Commercial Service**

The customer will provide and install all trenching, conduit, primary junction vaults, transformer vaults, backfill, secondary conductor, as well as service entrance wiring and equipment. Customer retains ownership and maintenance responsibility for customer-provided service conductors and equipment.

A Franklin PUD Engineering representative will meet the customer and representative at the construction site to finalize the scope of the work, if needed. If additional customer-furnished items are required, a Franklin PUD Engineering representative will review them with the customer as the job progresses.

**A Franklin PUD Engineering representative will determine the following:**

- Availability, location, and conditions of service
- Easements, if necessary
- Dollar amount of line extension fee for your new service

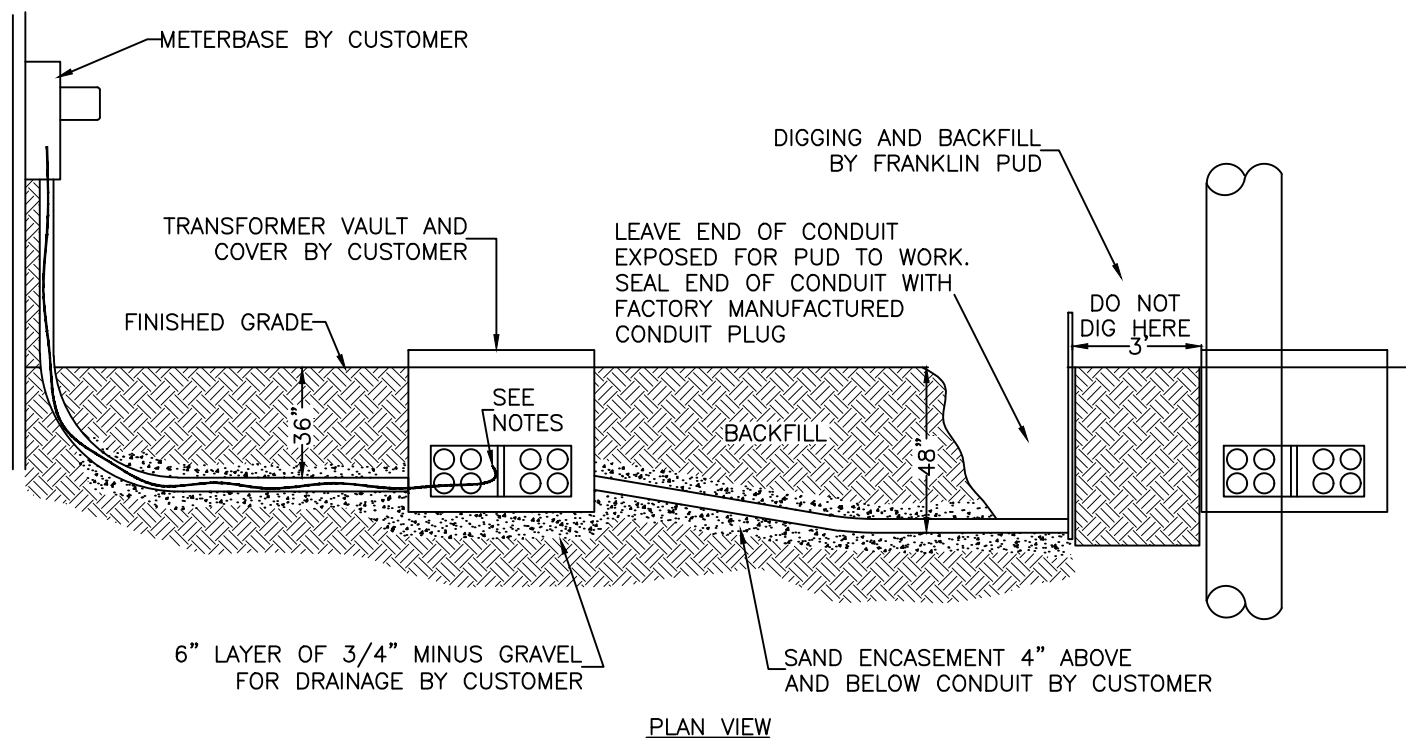
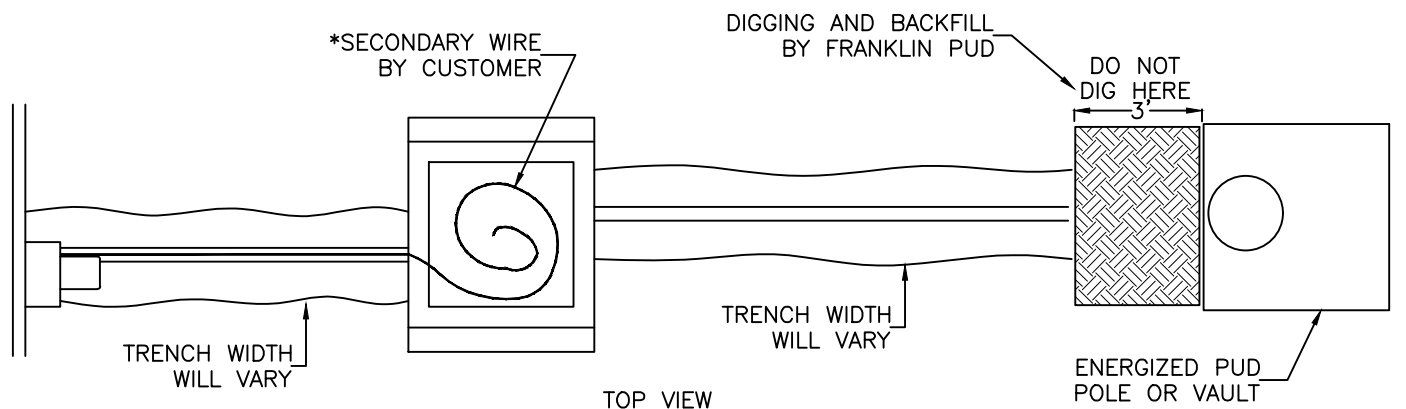
Customers are encouraged to call FPUD Engineering at 509-547-0556 early in the planning process.

**Meter**

Franklin PUD will supply and install the meter into the customer's meter base when the new service is approved and connected. FPUD will also provide and install current transformers (CTs) when required. Customers should check with FPUD Engineering for detailed meter socket, test switch, and installation requirements. The customer must pay all metering costs before the service is connected.

**Permits**

The customer obtains all permits required from city, county, and state agencies before excavating on any public lands or right-of-way, and installation must comply with the requirements of applicable agencies.



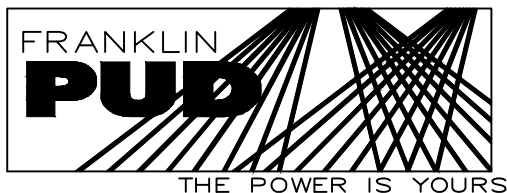
**NOTES:**

\* LOOP ENOUGH SECONDARY WIRE SLACK IN VAULT TO ALLOW CABLE TO EXTEND 8' ABOVE VAULT COVER. CHECK WITH FRANKLIN PUD ENGINEERING FOR SECONDARY DETAILS.

ALLOW FOR OVER HANG OF TRANSFORMER COOLING FINS BEYOND EDGE OF TRANSFORMER VAULT COVER. THE VAULT COVER SHOULD BE PLACED 10- FEET FROM ALL COMBUSTIBLE SURFACES, OVERHANGS, WINDOWS AND DOORS OR 4- FEET FROM ANY NON-COMBUSTIBLE SURFACES HAVING NO WINDOWS OR DOORS WITHIN 10- FEET OF VAULT COVER.

**DO NOT DIG WITHIN 3- FEET OF FRANKLIN PUD POWER POLE OR ENERGIZED VAULT.**

242.3.DWG



**3-PHASE COMMERCIAL SERVICE  
UNDERGROUND LINE EXTENSION GUIDE**

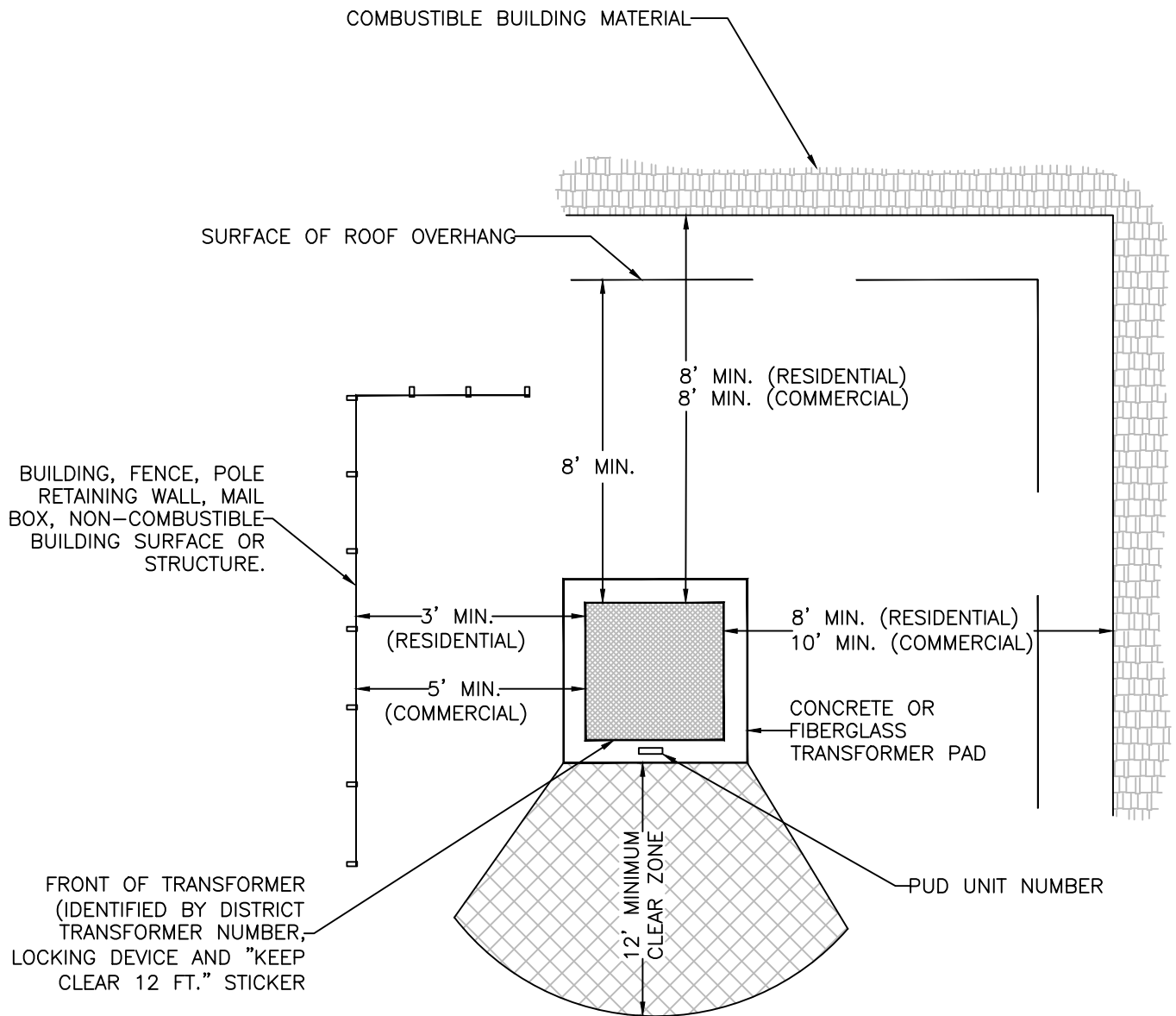
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**242.3**

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- NO OBSTRUCTIONS ALLOWED OVER TRANSFORMER.
- A MINIMUM 8 FT. CLEARANCE IS REQUIRED FROM ALL DOORS AND WINDOWS.
- DRAINAGE AT PADMOUNT TRANSFORMER MUST BE AWAY FROM BUILDING IN CASE OF OIL LEAKAGE.
- REFER TO LANDSCAPING GUIDELINES.

247.1.DWG



## TYPICAL TRANSFORMER CLEARANCES

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## SECTION 6. IRRIGATION SERVICE REQUIREMENTS

### 6.1 Preparing for New Electrical Service

To determine the availability, location, and condition of the service, the customer should complete a Request for Irrigation Electrical Service Application to advise Franklin PUD of the service requirements before installing electrical equipment, trenches, conduit, and service poles. FPUD will determine the availability location, and conditions for the service.

FPUD may require the customer to use reduced starting voltage or other equivalent measures. Any variable frequency drives (VFD) or other equipment with harmonic content should be noted on the Request for Irrigation Electrical Service Application. Check with FPUD Engineering before purchasing VFDs. The FPUD Engineering Department representative will review the location of service, route, and other associated information with the customer.

### 6.2 Permits

Customers will obtain any permits required from city, county, and state agencies before excavating on any public lands or right-of-way and comply with the requirements of these agencies.

### 6.3 Beginning Construction

Line extension fees covering FPUD labor, equipment, and material costs will be paid by the customer before FPUD construction crews are scheduled.

### 6.4 Installation & Material Specifications

The customer will provide and install all trenches, conduits, transformer vaults or pads, backfill, secondary conductors, required service poles, and all service entrance wiring and equipment.

#### **Meter**

The customer shall supply and install the necessary meter base and obtain inspection and approval from the State Electrical Inspector for all service entrance equipment. Franklin PUD will supply and install the meter into the customer's meter base when the new service is approved and connected. Franklin PUD will provide and install current transformers (CTs) when required. Contact Franklin PUD Engineering for details.

#### **Easements**

If an easement is necessary, FPUD Engineering Department representative will review this requirement with customer.

#### **Standard Service Voltages:**

- 1-phase, 120/240 V
- 3-phase, 208Y/120 V
- 3-phase, 480Y/277 V

**Franklin PUD STRONGLY recommends installing "Phase Failure Protection" on your 3-phase service equipment to protect your pump motors.**

## **6.5 Overhead Line Extensions**

When an overhead line extension, using pole-mounted transformers, is installed for irrigation service, the customer bears all line extension costs. Franklin PUD recommends the property owner or farmer review the project scope with FPU D Engineering to help minimize interruptions to farming activities.

**Franklin PUD** will provide and install the following at the customer's expense:

- Distribution poles
- Primary Conductor
- Transformers
- Short overhead service conductor from the distribution pole to your service pole.

The **CUSTOMER** shall provide the following in compliance with all local codes and have a licensed electrician install:

- Service poles - which may support other customer service entrance equipment, i.e., meter bases, panels, and disconnect switches. This equipment remains customer property and maintenance responsibility.
- Associated service entrance conductor and equipment.
- Underground service conductor riser conduits shall be brought 3 feet from Franklin PUD pole. The remaining 3-feet of underground conduit AND riser conduit shall be supplied to Franklin PUD for installation.
- Conduit sweep for the base of the pole.
- Three properly sized standoff Brackets for conduit riser.
- Weather head for the top of the riser.

The customer or contractor representative should contact Franklin PUD to review specific service requirements before purchasing or installing field installations.

## **6.6 Underground Line Extensions**

Regular irrigation primary (high voltage) line extensions utilize direct burial conductors (not in conduit). When a conduit system is necessary for protection from rodents or rock, or if other special conditions exist, Franklin PUD will provide guidance and specifications for material supplied and installed by the customer.

### **Transformer Pad/Vault and Cover**

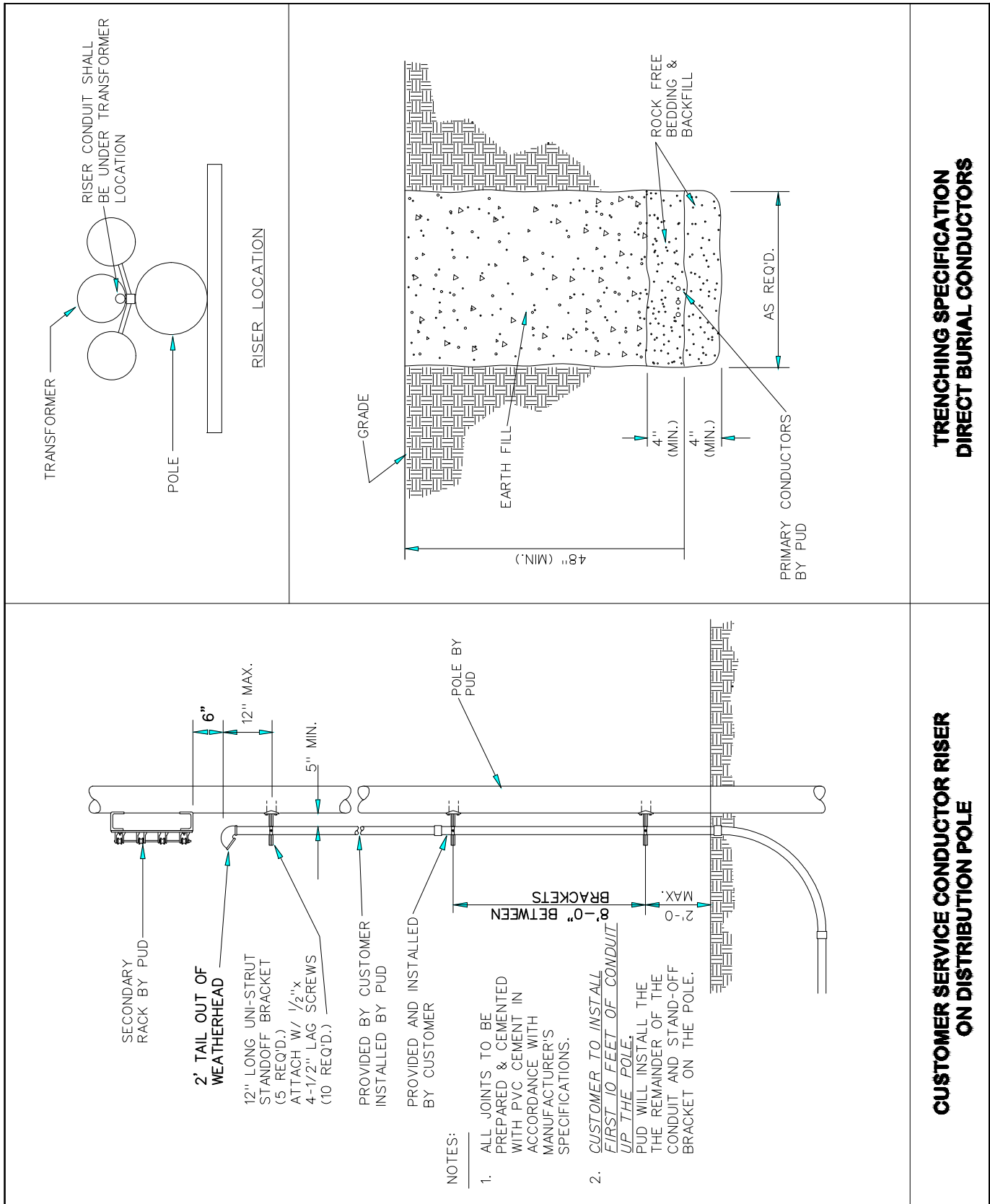
A pad-mounted transformer is installed on a concrete pad supplied and installed by the customer. Franklin PUD will provide the pad specifications after the transformer size is determined.

**For large installations**

Franklin PUD may require a vault with a pad lid instead of the pad only where special conditions exist. Specifications will be supplied after the transformer and customer service wire sizes are known. FPUD Engineering must first approve equivalent products.

**Secondary Conductors**

The customer will install secondary conductors (with additional wire to reach the transformer) at the transformer vault/pad location before Franklin PUD installs the transformer.



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## COMMERCIAL/IRRIGATION SERVICE LINE EXTENSION GUIDE

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## SECTION 7. METER REQUIREMENTS

All meters must be installed per Franklin PUD's Electrical Service Requirements and conform with the National Electric Codes (NEC). Franklin PUD encourages customers to consult FPUD Engineering before purchasing and installing meter equipment.

### 7.1 Meter Locations

The meter bases shall be installed in a location acceptable to Franklin PUD:

#### **Residential and Commercial**

- Must be accessible to Franklin PUD personnel at all times for installing, connecting, and disconnecting, testing, and inspecting, maintenance and repair, and reading of the meter.
- Be installed on the outside of buildings on the side exterior wall of service structures within 6' of the front of the building.
- The height to the center of the meter shall be at or between 4'-6" and 5'-6" above construction and final grade.

#### **Modular Home Pedestals**

- Will not be less than 42" above finish grade.
- Suitably protected from physical damage.


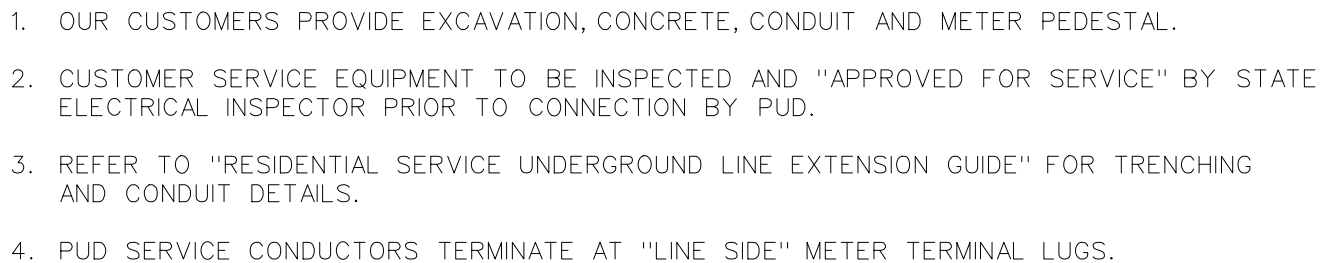
#### **Rural Services**

- May be installed on customer-owned poles.

### 7.2 Metering Equipment

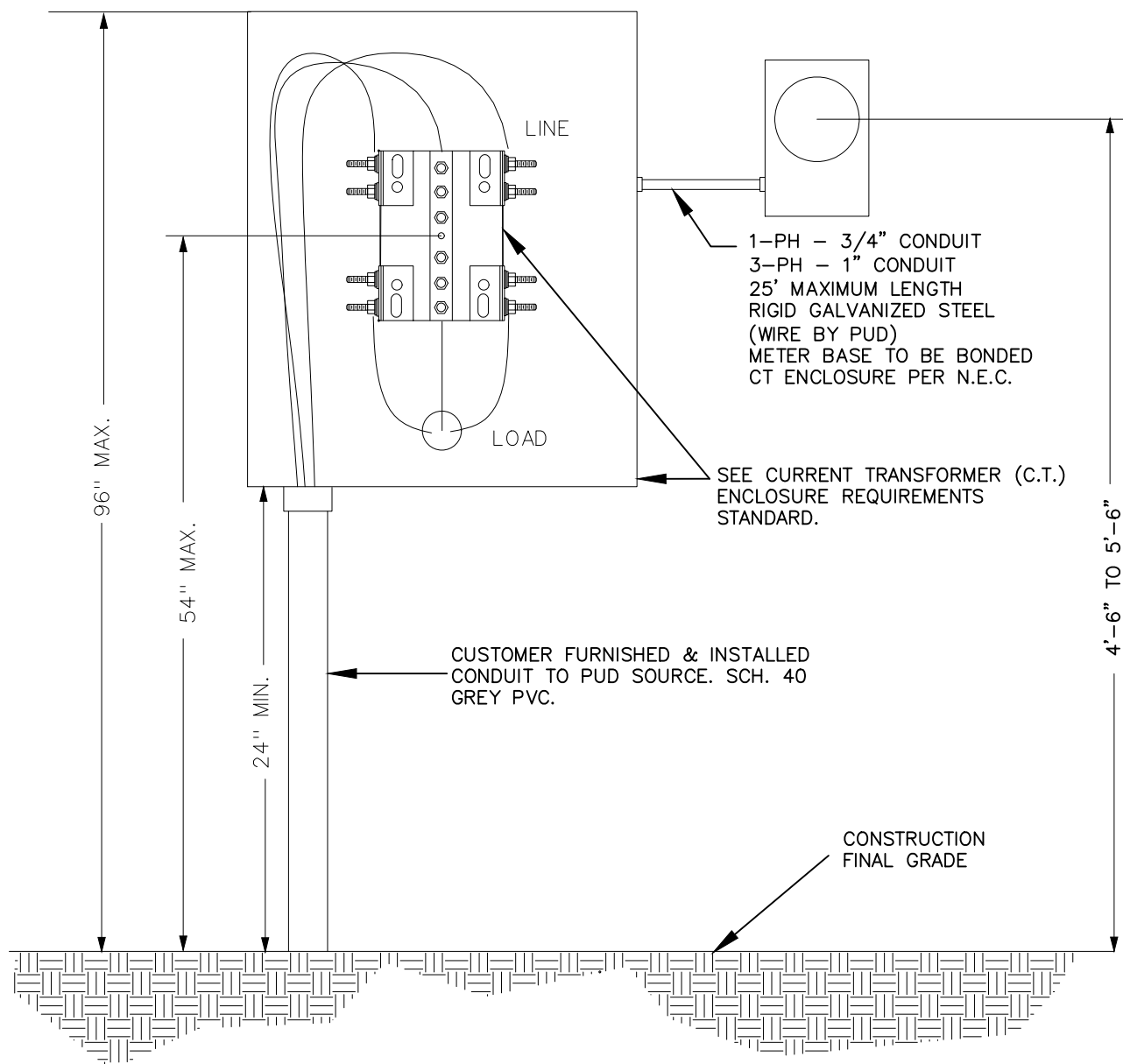
The customer shall install NEC-compliant meter bases as specified by Franklin PUD. The customer is responsible for the meter bases to be inspected by Washington State Labor and Industries. All costs, inspections, service fees, and materials are the customer's responsibility and shall be paid before connection to Franklin PUD's system. The meter is owned and maintained by Franklin PUD.

If current transformers (CT) are required, a suitable location and mounting bracket will be provided. The customer will provide all connecting conduits between the current transformer enclosure and the meter base.



FRANKLIN  
**PUD**

THE POWER IS YOURS



1. CUSTOMER FURNISHES ALL EXCAVATION AND MATERIALS. EXCEPT METER AND SERVICE CONDUCTOR.
2. CUSTOMER SERVICE EQUIPMENT NEEDS TO BE INSPECTED AND "APPROVED FOR SERVICE" BY THE STATE ELECTRICAL INSPECTOR PRIOR TO CONNECTION BY THE PUD. SERVICE EQUIPMENT MAINTENANCE REMAINS CUSTOMER'S RESPONSIBILITY.
3. REFER TO "RESIDENTIAL SERVICE UNDERGROUND LINE EXTENSION GUIDE" FOR TRENCHING AND CONDUIT INSTALLATION DETAILS.
4. THE C.T. COMPARTMENT IS TO BE WEATHER TIGHT WITH METER SEAL CLOSURES. DO NOT USE THE CENTER KNOCKOUT POSITION.(SEE PAGE 262.1 FOR DETAILED C.T. ENCLOSURE REQUIREMENTS).
5. THE PUD'S SERVICE CONDUCTORS TERMINATE AT THE LINE SIDE OF CURRENT TRANSFORMER COMPARTMENT.
6. THE CUSTOMER SERVICE ENTRANCE CONDUCTORS NEED TO BE LEFT WITH A MINIMUM 6'-0" TAIL IN THE C.T. COMPARTMENT FOR CONNECTION BY PUD.
7. TRENCH MUST BE COMPLETELY BACKFILLED FROM C.T. CAN BEFORE SERVICE IS PULLED & METER SET.

226.1.DWG



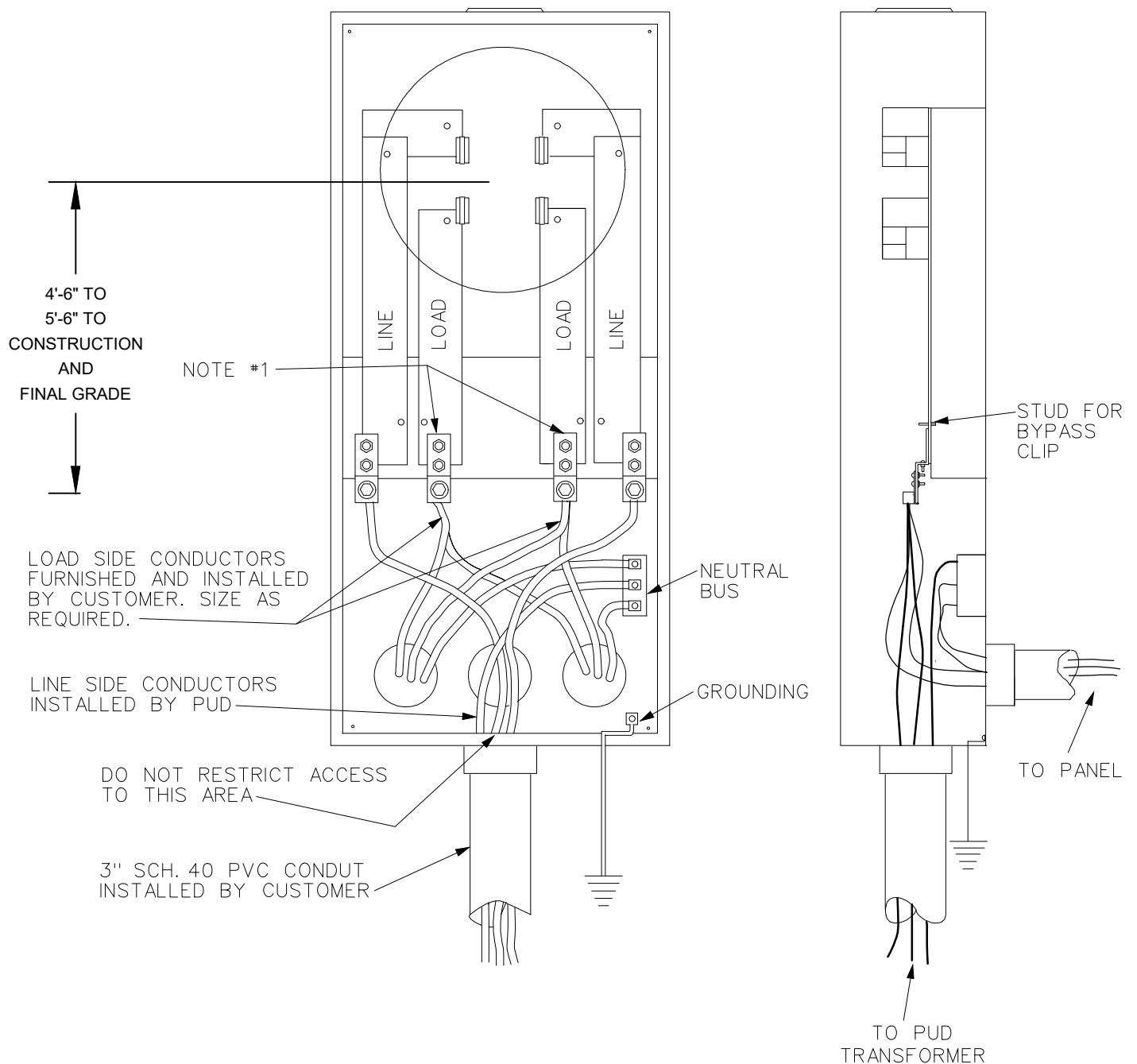
## UNDERGROUND RESIDENTIAL SERVICE ENTRANCE LARGER THAN 400 AMP

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UPDATED: 9/30/2024

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**NOTES:**

1. THE CUSTOMER PROVIDES AND INSTALLS THE LOAD SIDE CONNECTORS.
2. SEE GENERAL METERING REQUIREMENTS FOR APPROVED METER BASES.
3. INSTALL GROUND RODS AT EACH METER LOCATION PER N.E.C.
4. NO ACCESS TYPE FITTINGS ARE ALLOWED IN THE LINE SIDE CONDUIT
5. SERVICE CONDUIT MUST BE IN A POSITION NOT TO CONFLICT WITH CONDUITS AND WIRES FROM METER BASE TO PANELBOARD.
6. TRENCH MUST BE COMPLETELY BACKFILLED FROM METER BASE BEFORE SERVICE IS PULLED & METER IS SET

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**UNDERGROUND SOURCE - RESIDENTIAL  
320 AMP METER BASE 120/240 V. SINGLE PHASE**

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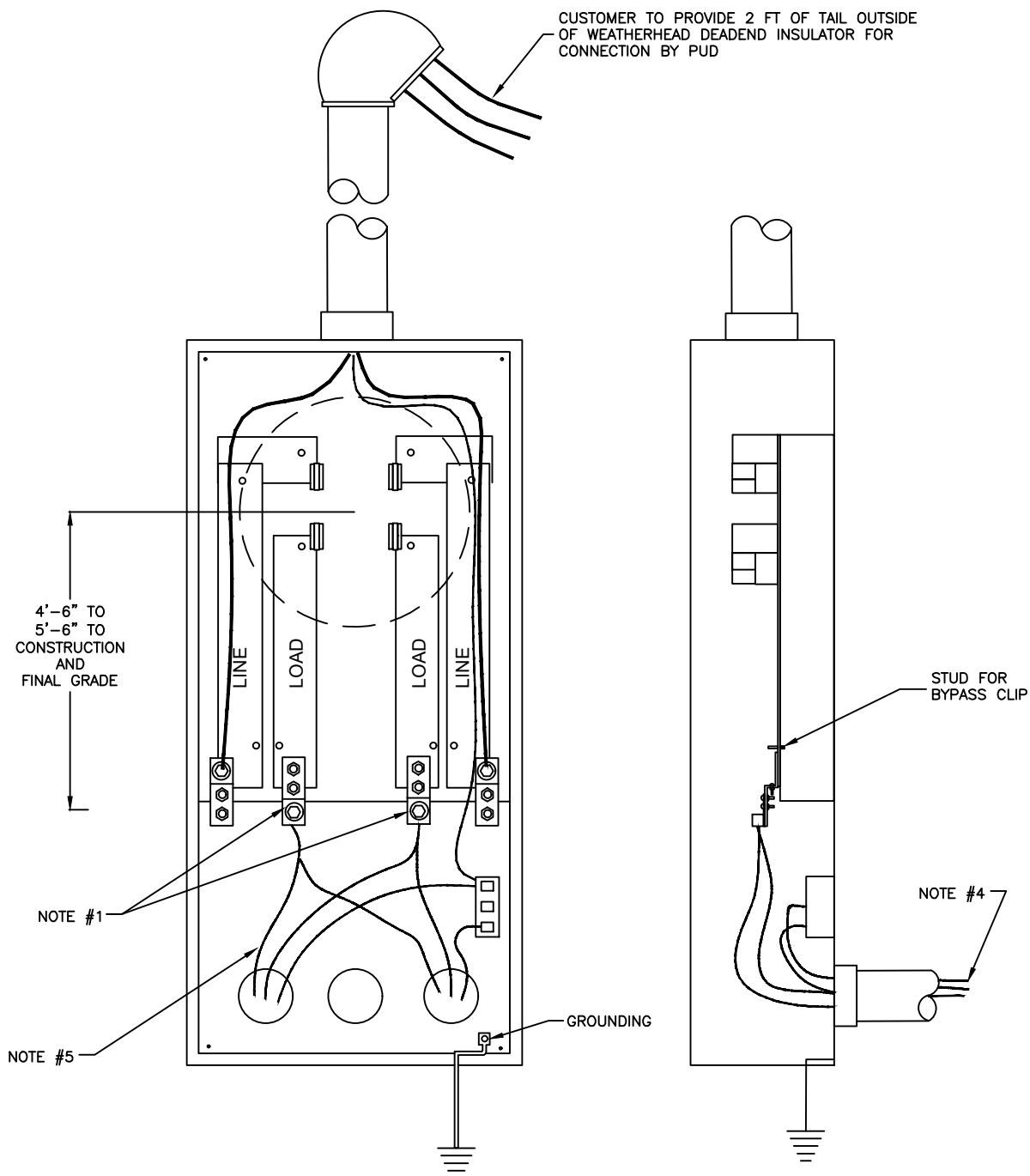
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**NOTES:**

1. THE CUSTOMER PROVIDES AND INSTALLS THE LOAD SIDE CONNECTORS.
2. SEE GENERAL METERING REQUIREMENT FOR APPROVED METER BASES.
3. INSTALL GROUND RODS AT EACH METER LOCATION PER N.E.C.
4. LOAD SIDE CONDUCTORS FURNISHED AND INSTALLED BY CUSTOMER. SIZE AS REQUIRED.

232.1.DWG



**OVERHEAD SOURCE - RESIDENTIAL  
320 AMP METER BASE 120/240 V. SINGLE PHASE**

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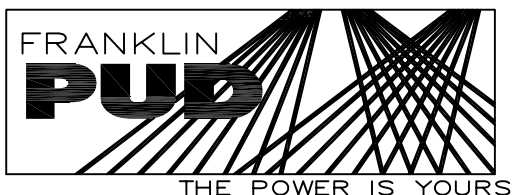
**232.1**

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|   |       | Self Contained Meter Base<br>(Furnished and provided by customer) |           |        | Current Transformer Meter Base<br>(Provided by Customer and Wired by Franklin PUD) |           |           |
|---|-------|---|-----------|--------|--|-----------|-----------|
| Voltage   | Wires | Max Amp.  | No. Clips | Socket | No. CT.  | NO. Clips | Socket    |
| Single Phase  |       |   |           |        |  |           |           |
| 120/240   | 3     | 200 Res/Comm.   | 4         | A      | 2  | 6         | C/Test SW |
| 120/240   | 3     | 320 Res/Comm.   | 4         | A      |  |           |           |
| 240/480   | 3     | 200   | 4         | A      |  |           |           |
| Network   |       |   |           |        |  |           |           |
| 120/208   | 3     | 200   | 5         | B      |  |           |           |
| Three Phase   |       |   |           |        |  |           |           |
| 208/120   | 4     | 200   | 7         | D      | 3  | 13        | E/Test SW |
| 240/120   | 4     | 200   | 7         | D      | 3  | 13        | E/Test SW |
| 240/480   | 4     | 200   | 7         | D      | 3  | 13        | E/Test SW |
| 480/277   | 4     | 200   | 7         | D      | 3  | 13        | E/Test SW |
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#### NOTES:

- Customer provides and installs all meter bases.
- PUD provides and installs test switches.
- Type E and C meter Bases shall be delivered to Franklin PUD's Meter Shop for Test Switch Installation and Pre-Wiring before Customer installs.
- Meters are required to be mounted external to the building. Deviation from District standards must be approved by District Engineering and Metering Department PRIOR to construction.
- Ringless meters are not approved by the District.
- The addition of customer owned equipment between the socket and utility owned electric meter, such as an intermediate internal transfer switch, is not allowed.
- the meter base for single phase, two wire service, shall be the same as a single phase, three wire service, with the upper right terminal tied to the neutral. Three phase, three wire service shall be metered as a three phase four wire service.
- Socket B will have the 9 o'clock terminal position tied to the neutral.



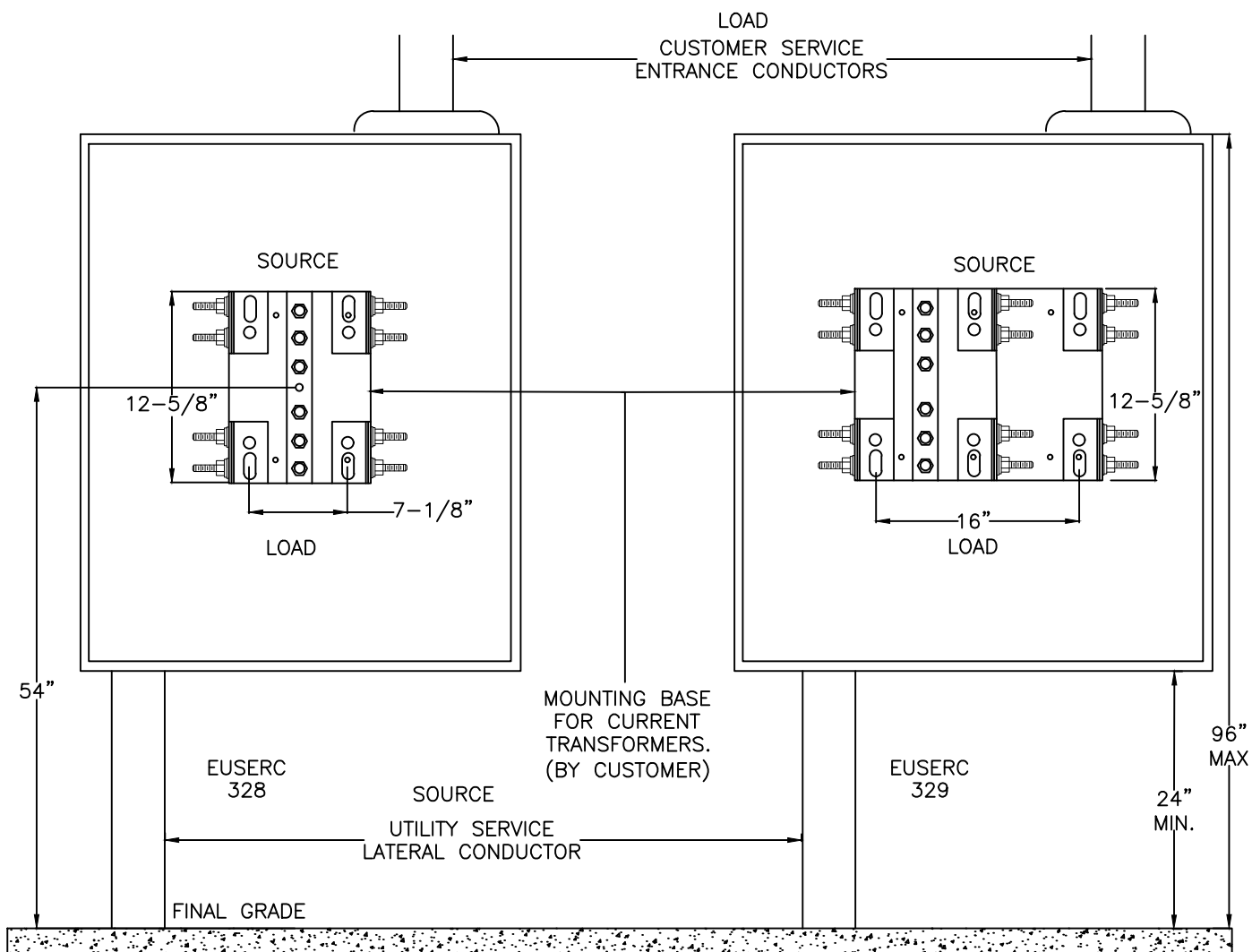
#### Meter Socket Terminal Clip Configuration

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| PHASE | AMPACITY | ENCLOSURE SIZE   | MODEL NUMBER  |
|-------|----------|------------------|---|
| 1Ø    | 201-800  | 24x48x11 MINIMUM | MILBANK #CT244811-SC<br>COOPER B-LINE #244811 RTCT  |
| 3Ø    | 201-800  | 30x48x11 MINIMUM | MILBANK #CT304811-HC<br>COOPER B-LINE #304811 HRTCT |

SWITCHBOARDS SHALL BE USED ON SERVICE 801 AMPERES AND ABOVE.

262.1.DWG



## CURRENT TRANSFORMER (C.T.) ENCLOSURE REQUIREMENTS

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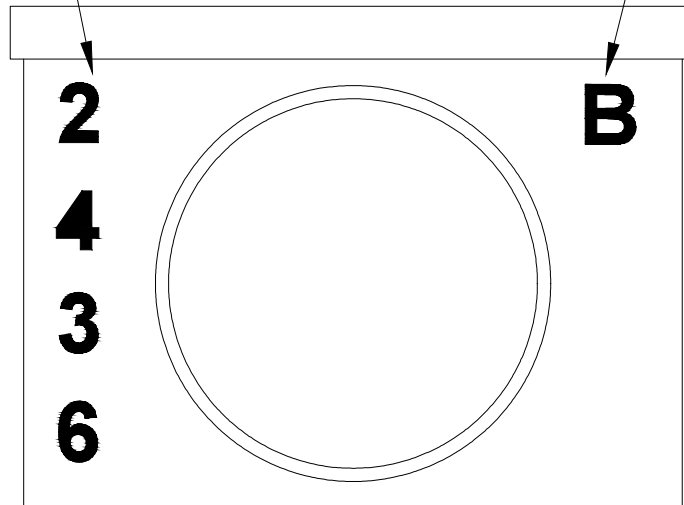
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ADDRESS NUMBER

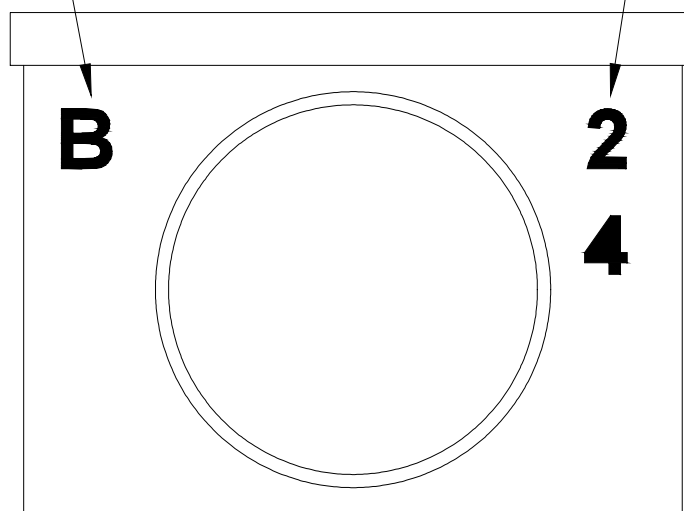
APT. OR UNIT LETTER



OR

BUILDING LETTER

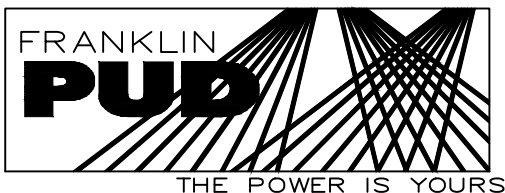
APT. OR UNIT NUMBER



ALL MULTIPLE METERBASE INSTALLATIONS NEED TO BE APPROPRIATELY LABELED PRIOR TO CONNECTION OF SERVICE. ACCEPTABLE MARKING METHODS ARE SHOWN ABOVE.

LETTERS AND NUMBERS ARE TO BE A 1" MINIMUM HEIGHT, SECURELY FASTENED TO THE METERBASE BY SCREWS, RIVETS OR WATERPROOF ADHESIVE.

263.1.DWG



## METERBASE IDENTIFICATION

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UPDATED: 11/22/2019

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## SECTION 8. SUBDIVISION & PLAT REQUIREMENTS

### 8.1 Installing Electrical Facilities Within a Subdivision or Plat

The following information outlines Franklin PUD's general requirements for installing underground electrical facilities within a subdivision or plat. It also summarizes the practices and policies incorporated in Franklin PUD's Rules and Regulations for Underground Line Extensions. When planning a subdivision, please contact Franklin PUD's Engineering Department for additional information and requirements.

Subdivisions and plots must be approved and recorded by the city or county, and Franklin PUD's name must be included on all utility easements.

Franklin PUD's Engineering Department will determine the availability, location, and condition of services, easements, line extensions, and applicable fees and contracts.

### 8.2 Owner/Developer Responsibilities

At the minimum, the owner (customer) and developer are responsible for:

- All trench, conduit, bedding, and backfill.
- Vaults and vault installation for primary and secondary conductors.
- Grade stakes for vaults.
- Easements for primary lines and transformer(s).

### 8.3 Beginning Construction

After necessary inspections and fees have been paid by the customer, FPUD crews will be scheduled on a first-come, first-served basis. Every effort will be made to expedite the customer request. However, several factors influence this: weather, site preparation, and the availability of workforce and materials. The sooner information is provided by the customer, the sooner the material can be ordered.

### 8.4 Conduit

The underground conduit must be gray Polyvinyl Chloride (PVC) Schedule 40, conform to NEMA TC2 Specifications, and be permanently marked at regular intervals with the manufacturer's name or symbol, size, "SCH 40" and "PVC." The conduit size will be determined by FPUD (usually 3", 4", or 6").

### 8.5 Couplings and Fittings

Couplings and fittings must be PVC Schedule 40, factory-made, and conform to the exact specifications of the conduit. Special sweeps may be required at the discretion of Franklin PUD Engineer. Sweeps must have a minimum 36" centerline radius. **Heat-bent angles are not allowed.**

## 8.6 Installation of the Conduit System

Conduit should run in a straight line. As specified above, standard bends, sweeps, or offsets may be used as required and approved. Install couplings, connectors, and fittings to provide a rigid mechanical assembly with conduit cut square, reamed, and without burrs. Cement conduit joints as recommended by the manufacturer.

- **The conduit must be sealed with a factory-manufactured conduit plug.**

## 8.7 Conduit Bedding and Encasement

The minimum depth from the finished grade to the bottom of the trench for primary cable and for road crossings is forty-eight (48) inches and thirty-six (36) inches to the bottom of the trench for secondary cable. Sand or clean soil may be used for the encasement of the conduit. Street crossings for secondary cables shall be at forty-eight (48) inches.

- **Crushed stone over one (1) inch or other similar aggregate with sharp points is NOT acceptable.**

## 8.8 Inspections

After installation of the conduit call FPUD Engineering for an inspection before proceeding.

**Please obtain FPUD approval before backfilling any trench to avoid exposure of all or part of the conduit run for inspection before cable installation. Any conduit failures, separation, etc., shall be the responsibility of the owner/developer to correct.**

## 8.9 Backfill

Excavation material may be used for backfilling, provided it is free from vegetation, trash, rock, or frozen particles. Backfill should be placed uniformly in layers, and each layer should be thoroughly compacted.

## 8.10 Vaults and Covers

The concrete primary junction vaults, transformer vaults, and covers shall meet Franklin PUD's specifications. FPUD Engineering must approve any equivalent products before installation.

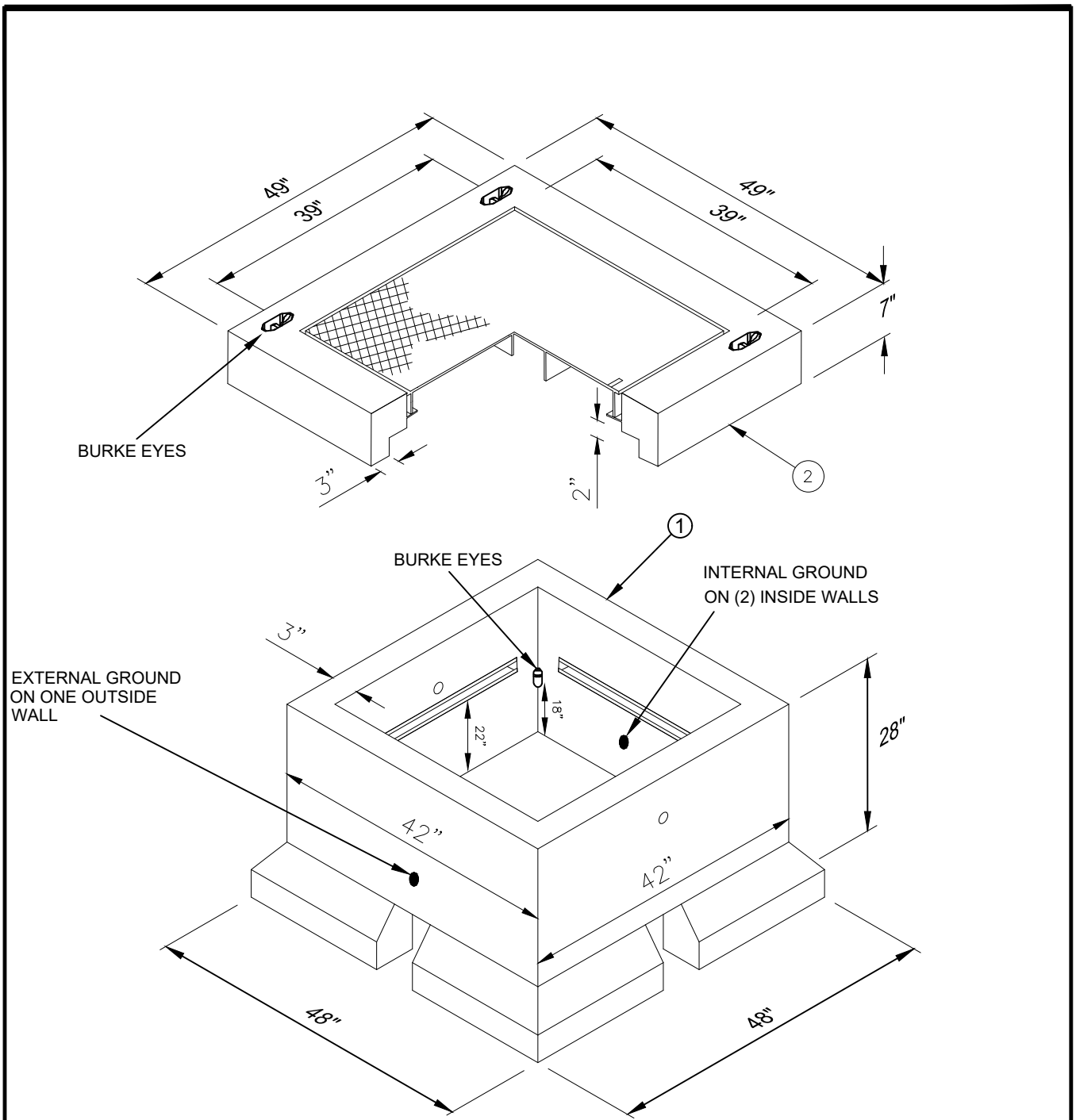
Knockouts should be made from the inside of the vault. Completely remove the center knockout in the bottom of the vault before installation to allow the vault to drain. Vault penetrations shall be grouted inside and outside according to FPUD standards. All vaults shall be placed on a 6" base of compacted crushed rock.

### **Installation for areas not graded:**

The top of concrete junction vaults (not including the cover) shall be installed at the final grade level so that, when the 6" lid is in place, the top of the lid will be 6" above the final grade of the surrounding surface.

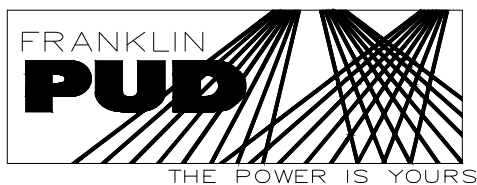
**Typical installation along the roadway, sidewalks, parking area, and other graded areas:**

The top of the vault lid shall match the finish grade. The customer is responsible for any discrepancies with any permitted approving agency.



**NOTES:**  
SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES.

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# VAULT, SINGLE-PHASE PRIMARY JUNCTION

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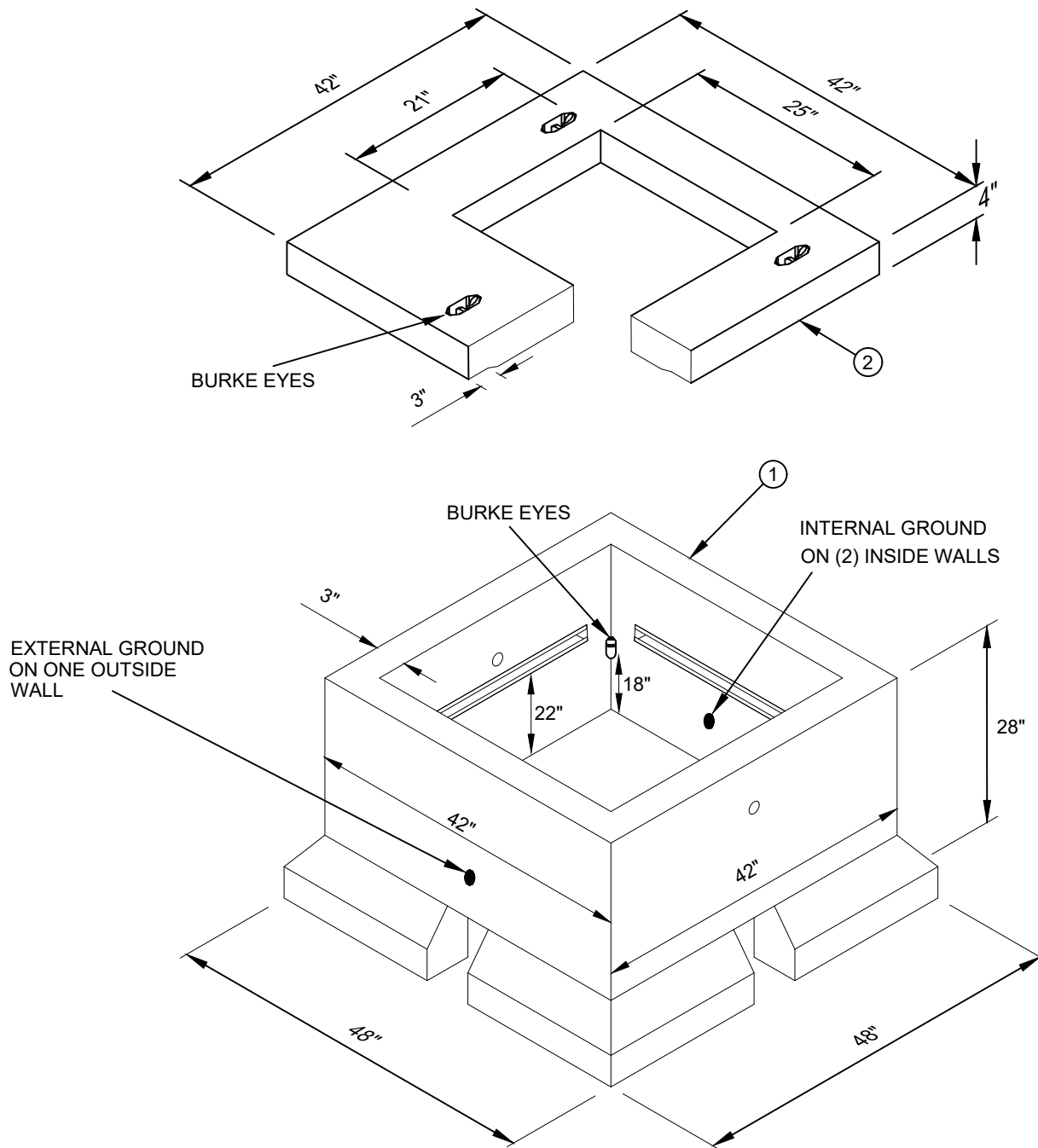
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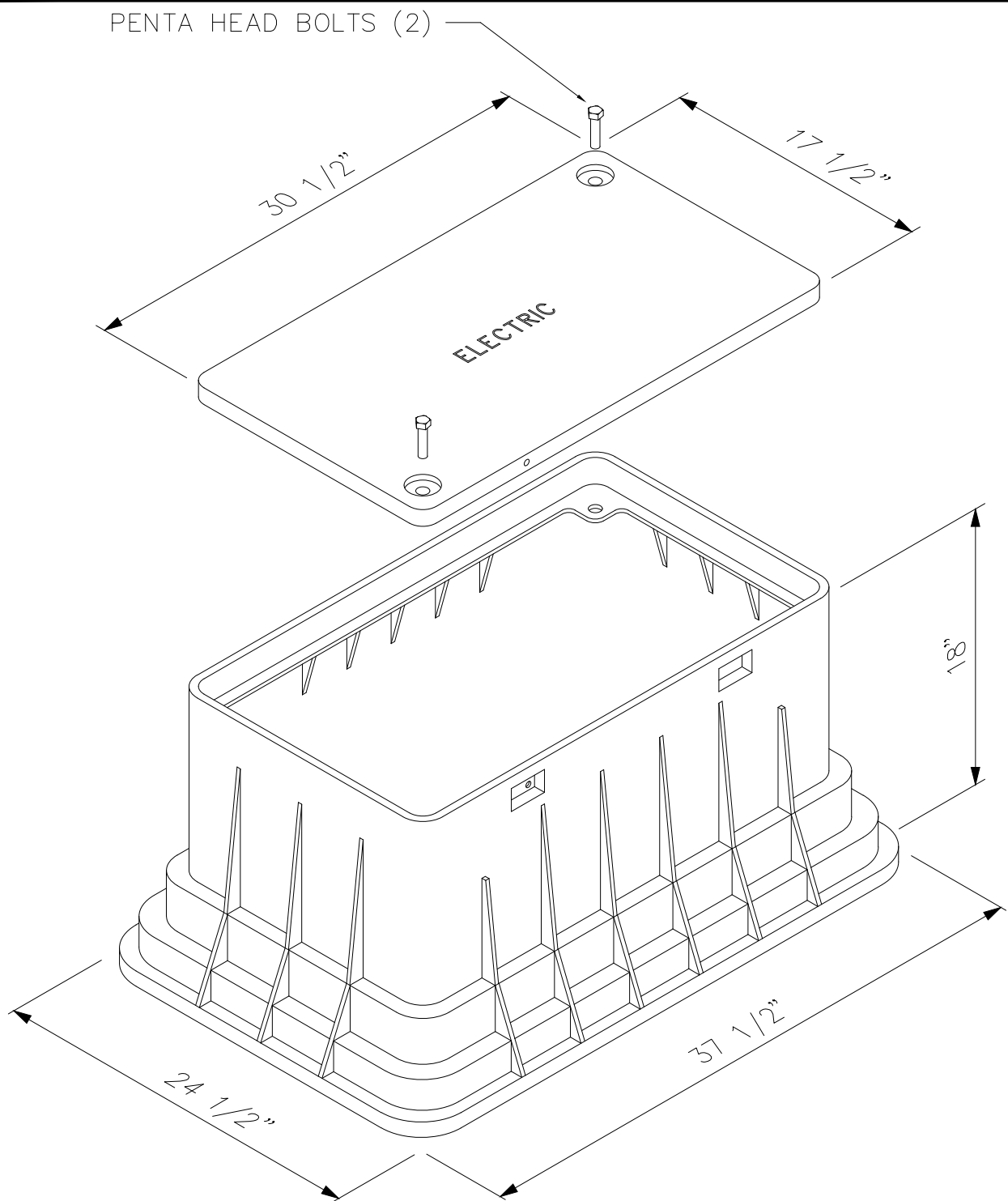
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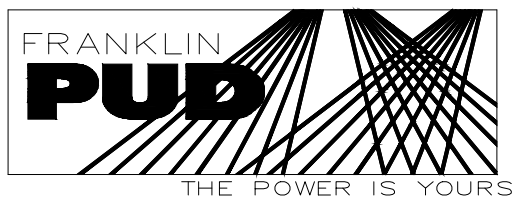
**NOTES:**

SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES.



1. FOR USE IN AREAS NOT SUBJECT TO VEHICULAR TRAFFIC
2. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

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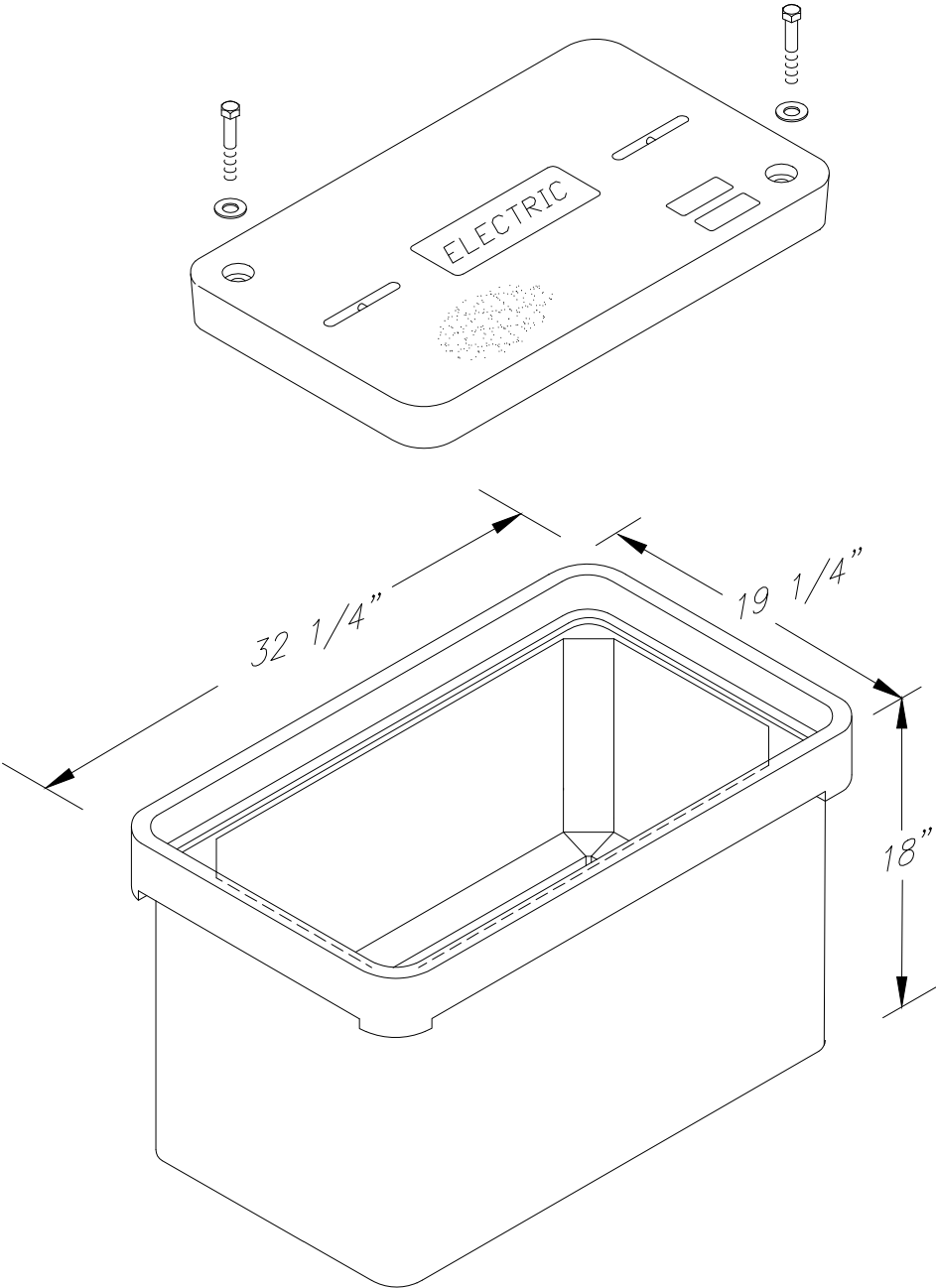
## PLASTIC SECONDARY JUNCTION VAULT

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UPDATED: 3/23

DWG. NO.

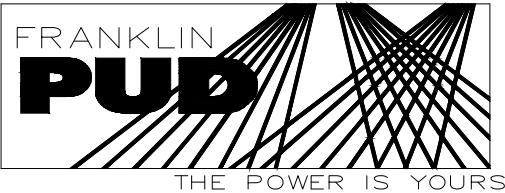
**V.03.01.00**



**NOTES:**

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES
2. LIGHT TRAFFIC RATED

V.03.02.00.DGN



**TRAFFIC RATED SECONDARY JUNCTION  
VAULT WITH COVER**

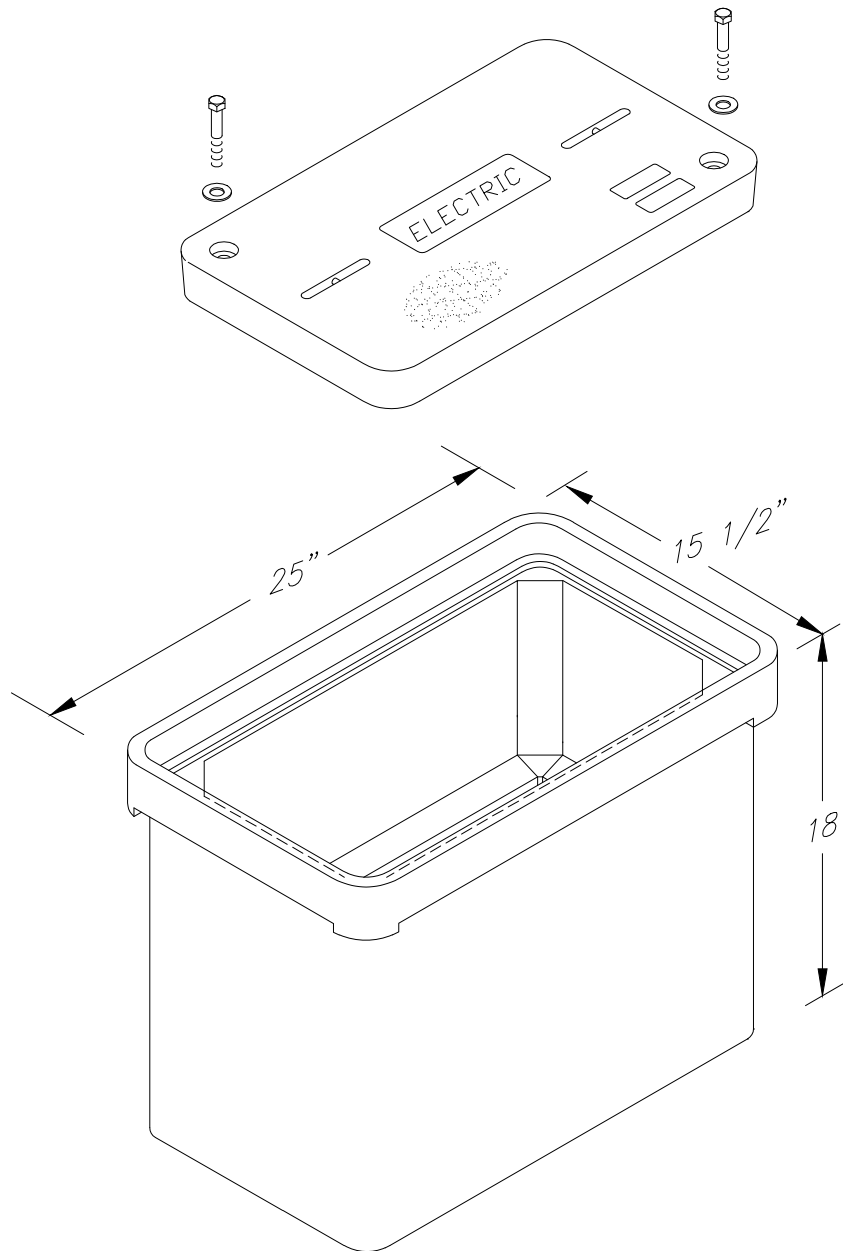
DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

**V.03.02.00**

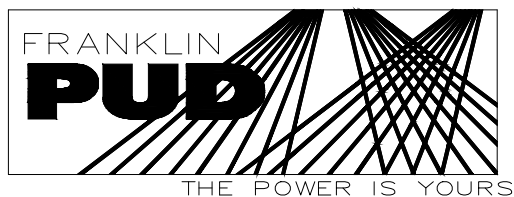
V.03.03.00



**NOTES:**

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES
2. LIGHT TRAFFIC RATED

V.03.03.00.DGN



**STREET LIGHT JUNCTION BOX  
WITH COVER**

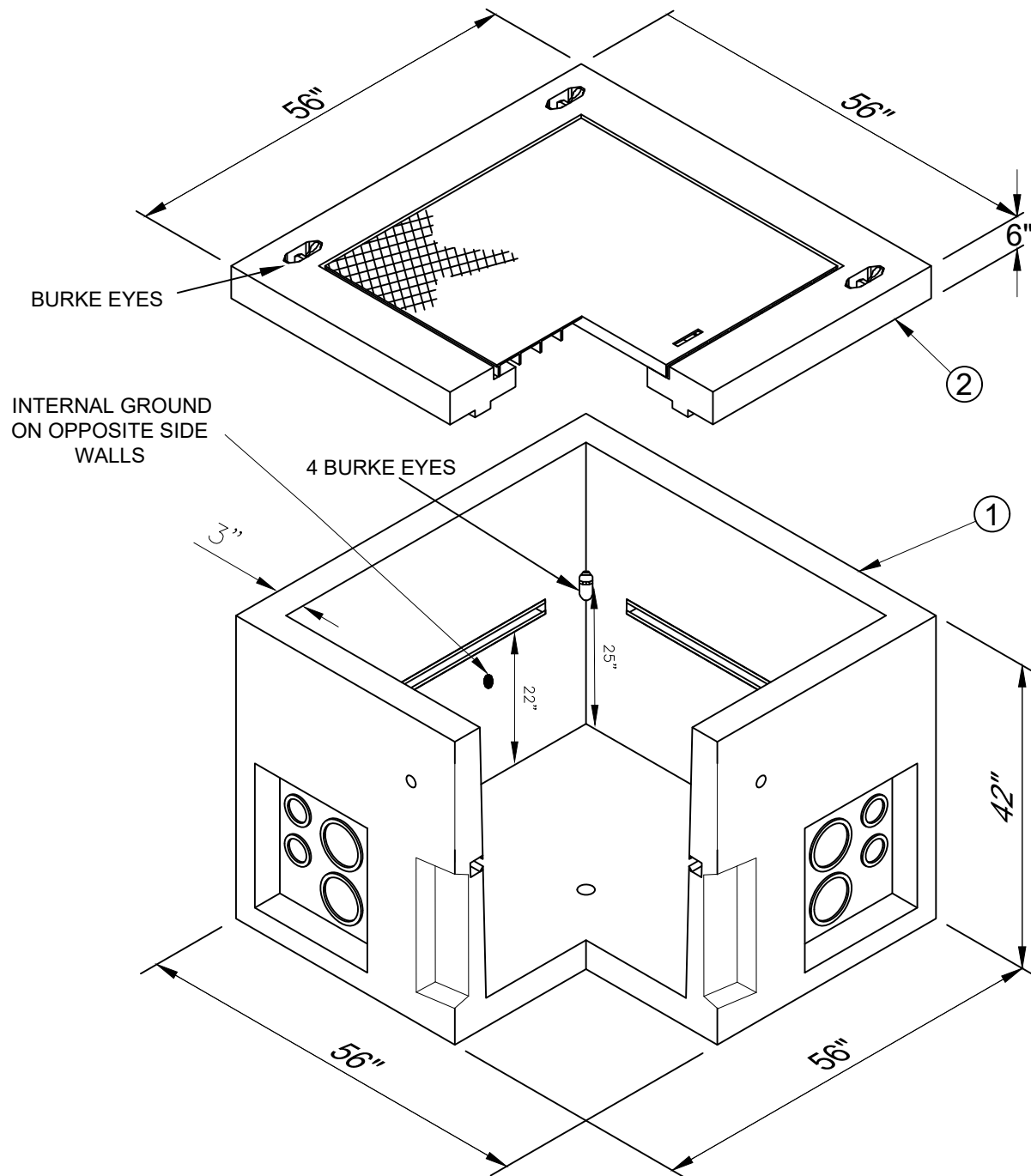
DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

**V.03.03.00**

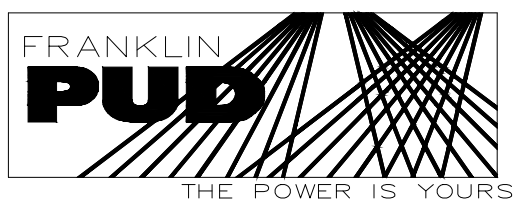
Page 43



# **NOTES:**

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

V.04.01.00.DGN



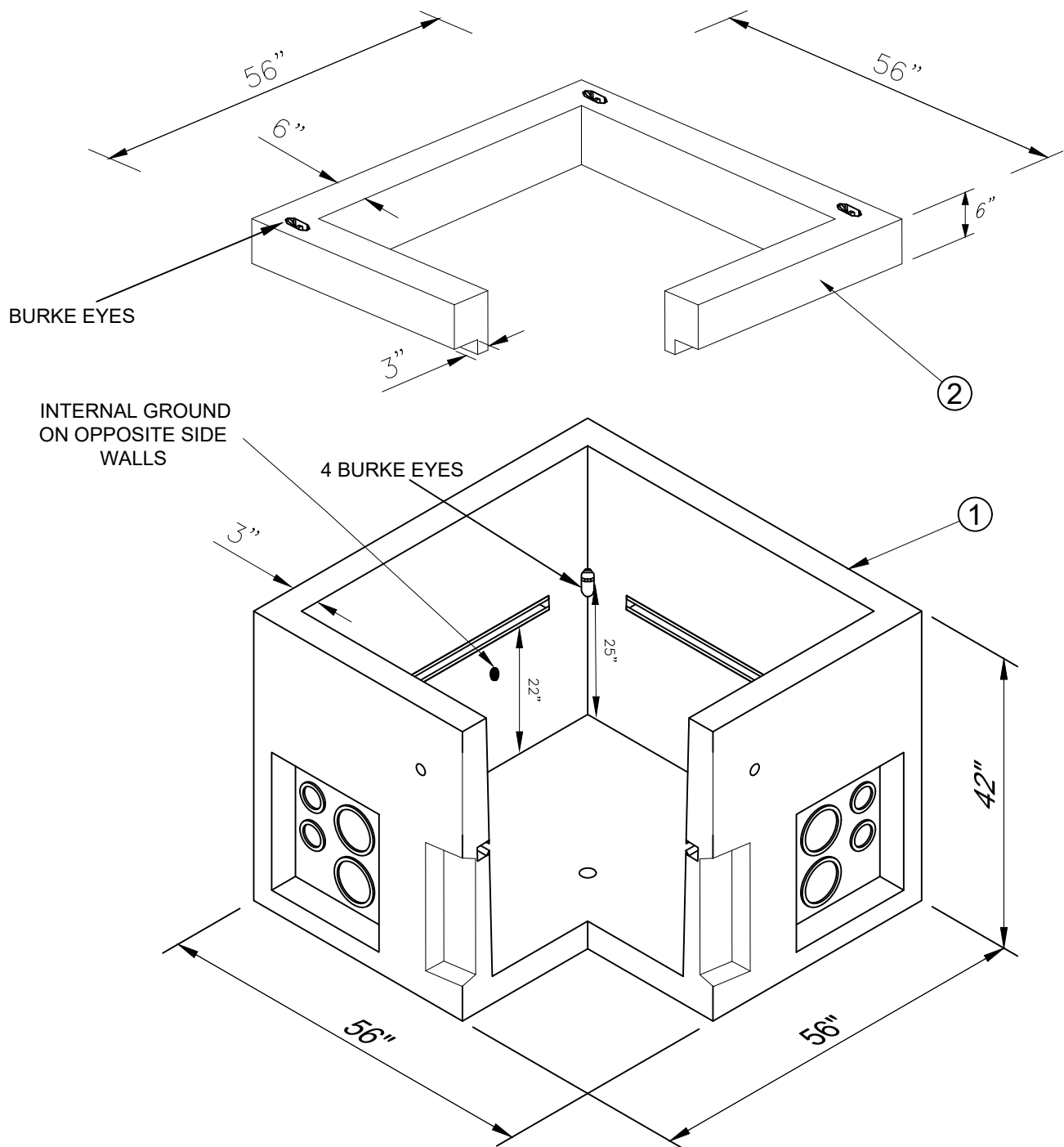
## **PRIMARY JUNCTION VAULT WITH STEEL LID COVER**

DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

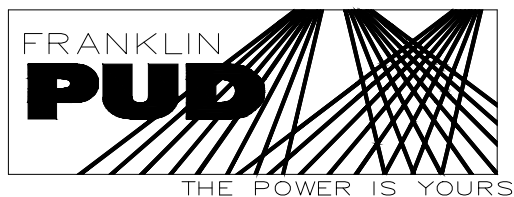
**V.04.01.00**



#### NOTES:

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

V.04.02.00.DGN



#### SECONDARY TERM CABINET VAULT WITH CONCRETE EXTENSION RING

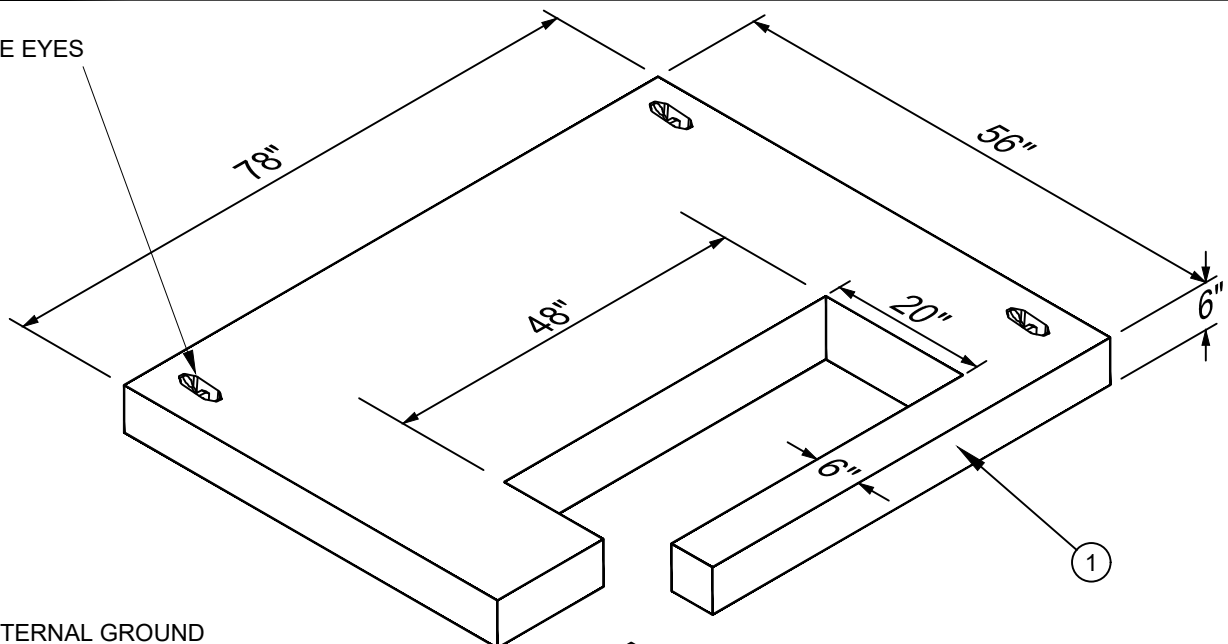
DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

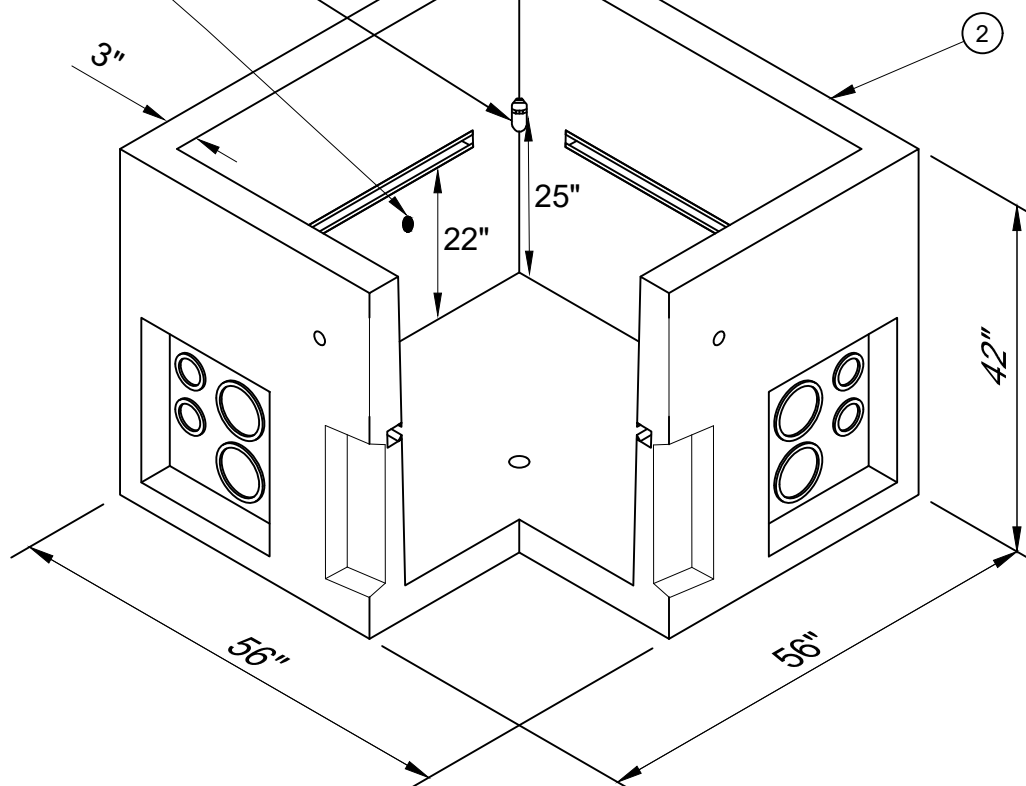
V.04.02.00

BURKE EYES



INTERNAL GROUND  
ON OPPOSITE SIDE  
WALLS

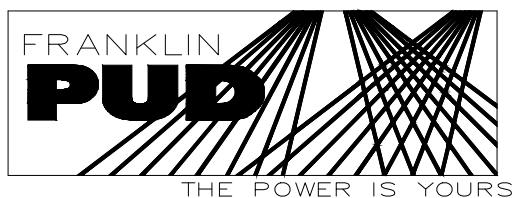
4 BURKE EYES



**NOTES:**

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

V.04.03.00.DGN



VAULT, TRANSFORMER  
3-PH PAD-MOUNT (45-300KVA)

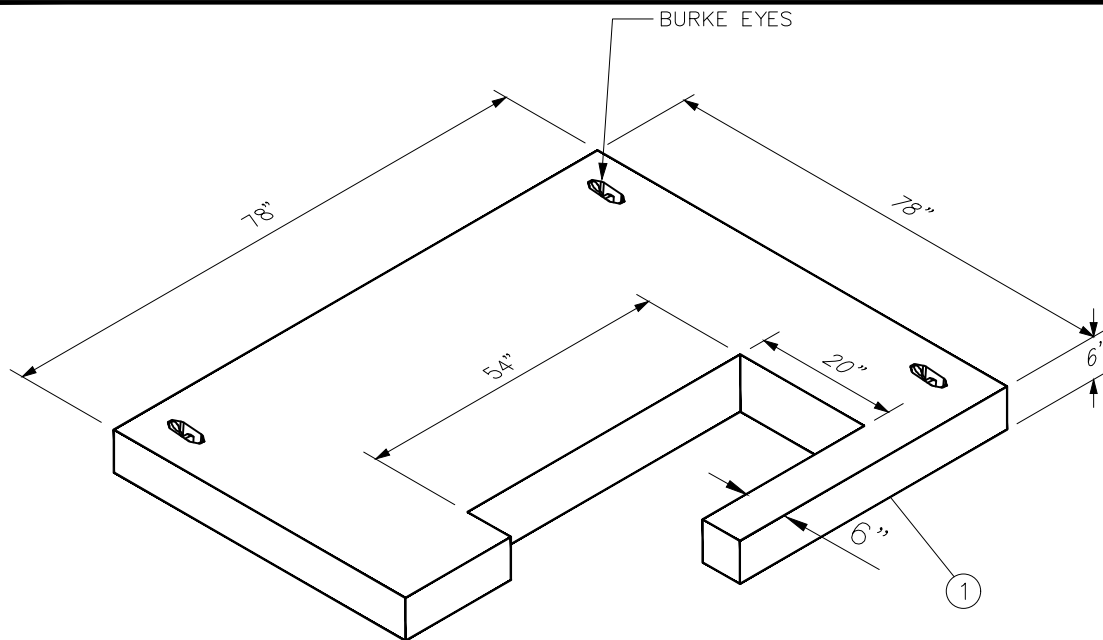
DWN.

DATE: 5/08  
UPDATED: 3/23

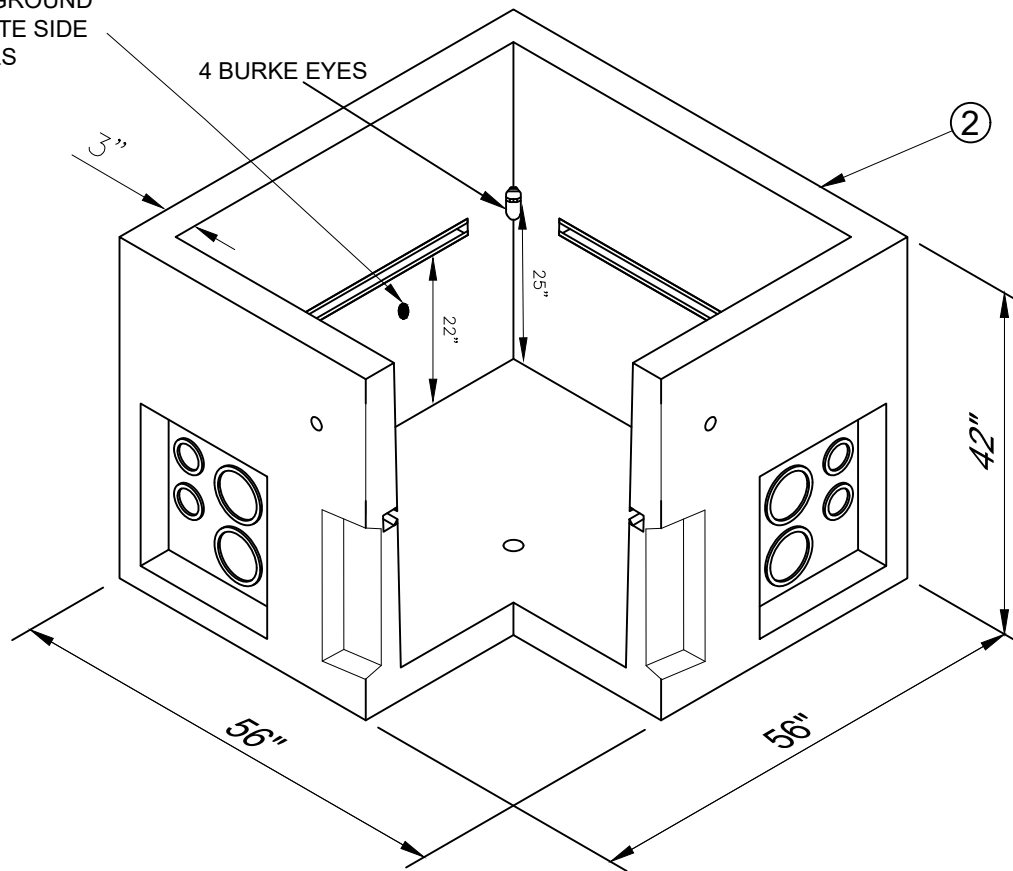
DWG. NO.

APP.

V.04.03.00



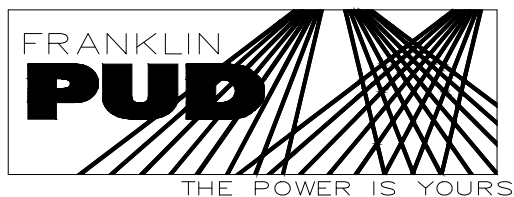
INTERNAL GROUND  
ON OPPOSITE SIDE  
WALLS



#### NOTES:

1. SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

V.04.04.00.DGN



VAULT, TRANSFORMER  
3-PH PAD-MOUNT (500-750 KVA)

DWN.

DATE: 5/08  
UPDATED: 3/23

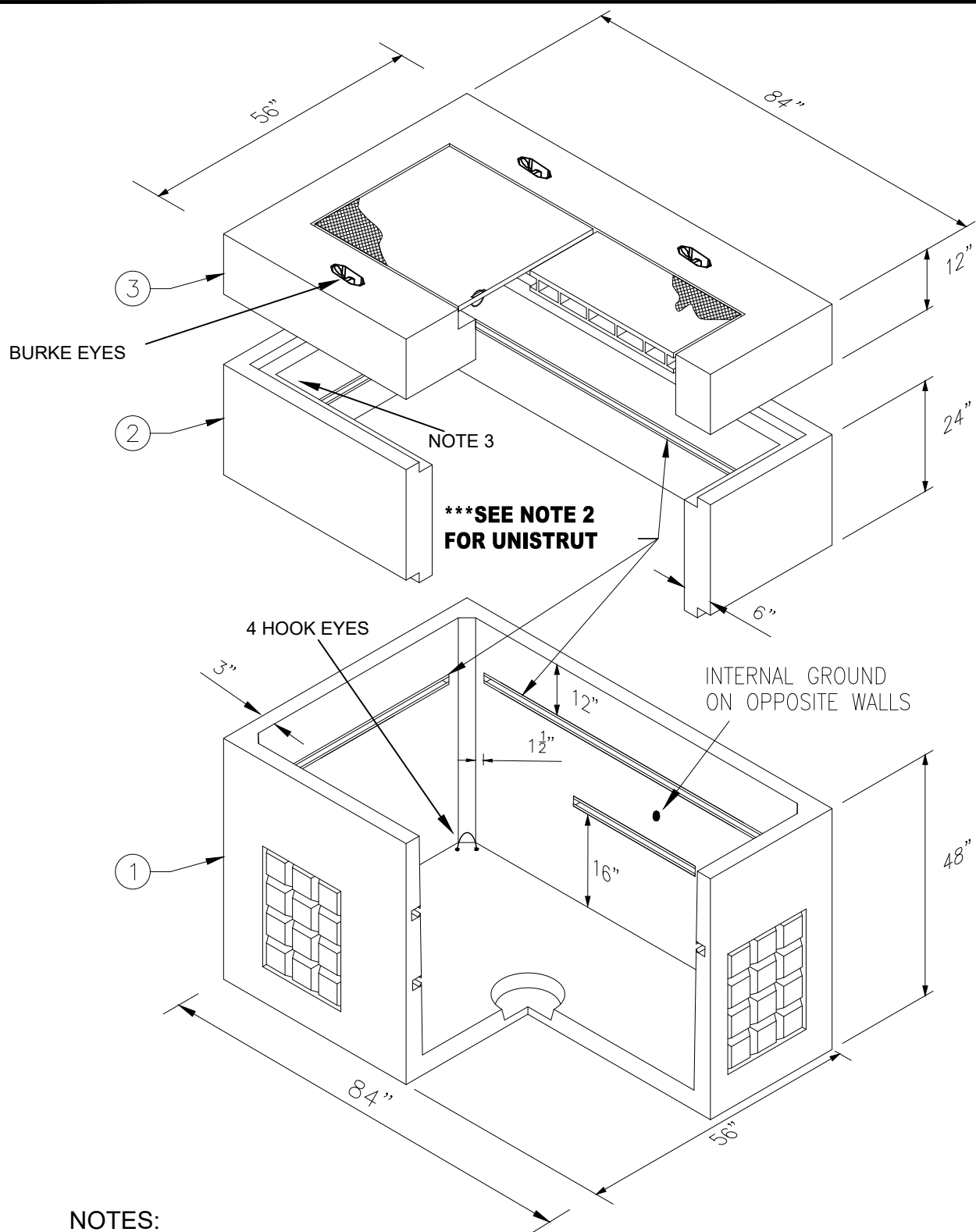
DWG. NO.

APP.

V.04.04.00

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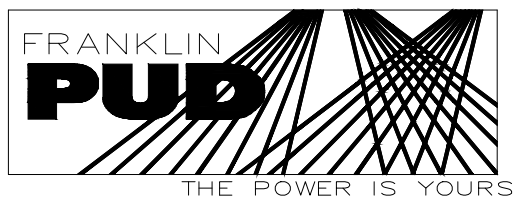




#### NOTES:

- 1) SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES
- 2) UNISTRUT SHALL EXTEND TO WITHIN 1.5" OF THE VAULT WALLS ON BOTH THE VAULT AND THE 24" EXTENSION
- 3) BURKE EYES ON 4 CORNERS ON THE INSIDE, 12" FROM EXTENSION RING TOP

V.06.01.00.DGN



#### PRIMARY JUNCTION VAULT THREE PIECE WITH STEEL LID COVER

DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

V.06.01.00

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-BURKE EYES (TYPICAL)

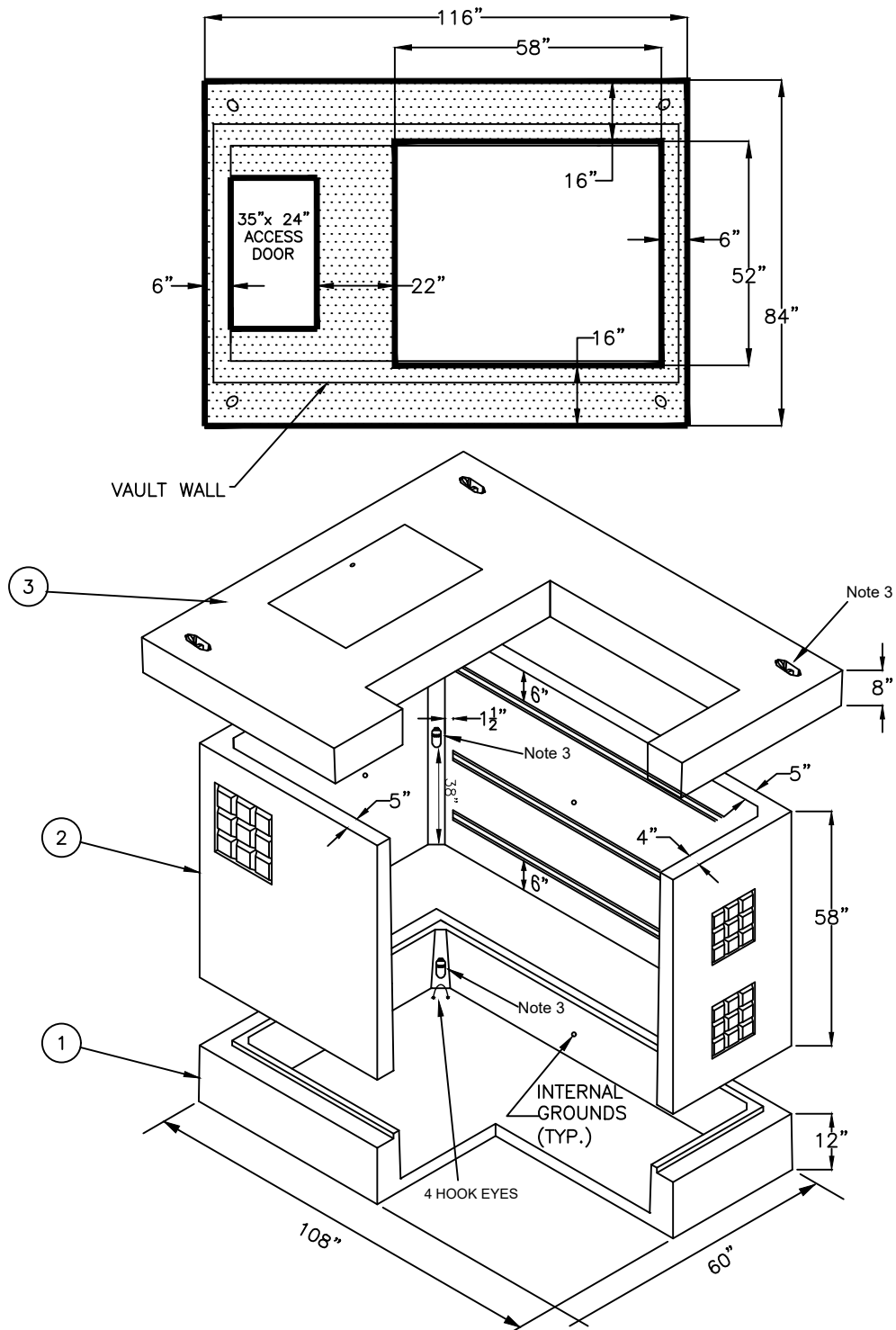


V.06.03.00.dwg



|          |
|----------|
| DWG. NO. |
|----------|

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**NOTE:**

- 1) SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES.
- 2) INTERNAL GROUNDING ACCESS POINTS. (4 PER SECTION, AS SHOWN)
- 3) BURKE LIFTING EYES (4 PER SECTION, AS SHOWN)

V.08.04.00.DWG



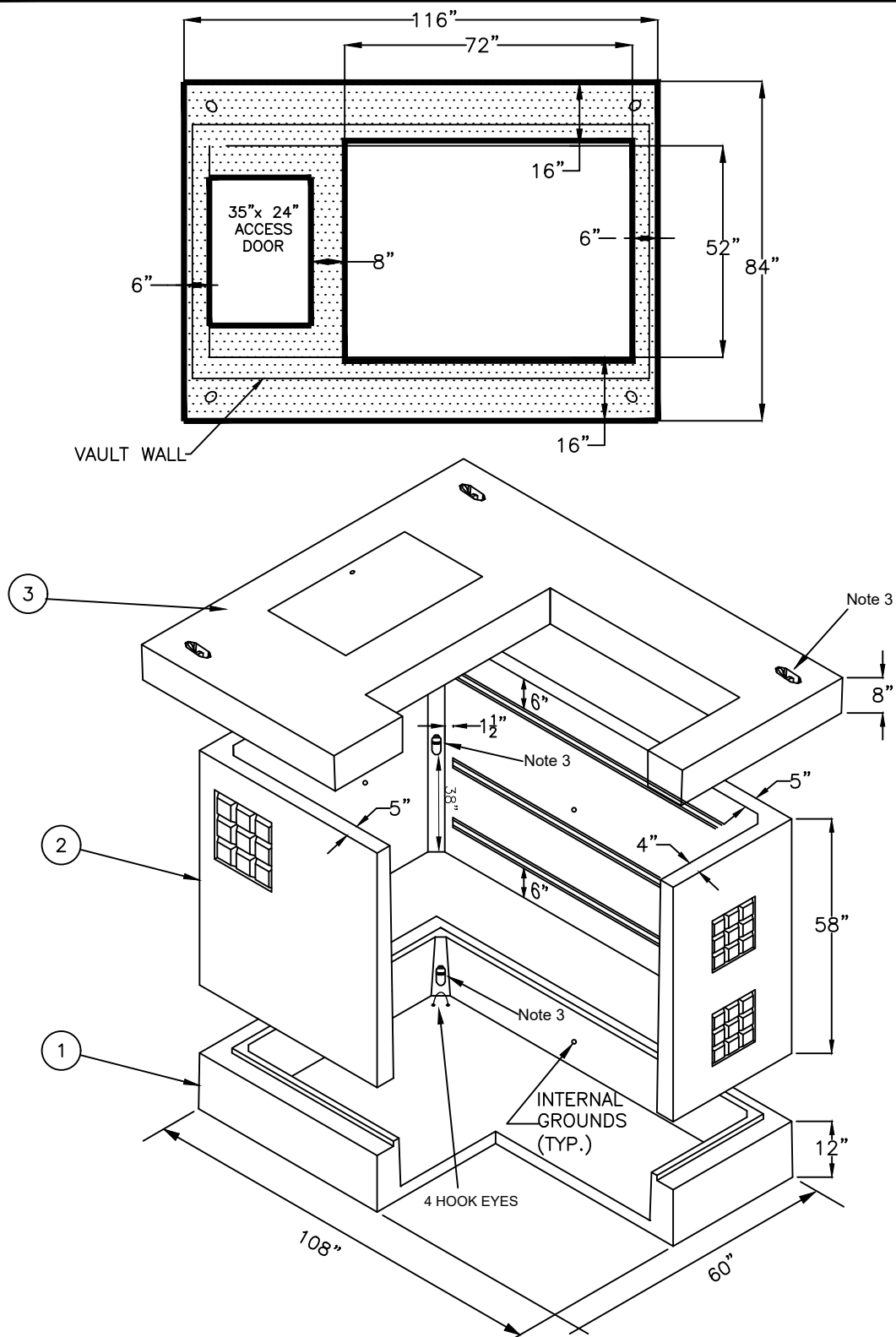
**PRIMARY JUNCTION VAULT WITH  
CAPACITOR, RECLOSER, PRIMARY METER LID**

DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

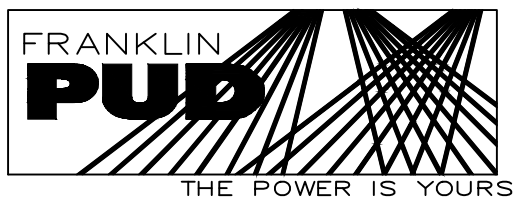
**V.08.04.00**



**NOTE:**

- 1) SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES.
- 2) INTERNAL GROUNDING ACCESS POINTS. (4 PER SECTION, AS SHOWN)
- 3) BURKE LIFTING EYES (4 PER SECTION, AS SHOWN)

V.08.05.00.DWG



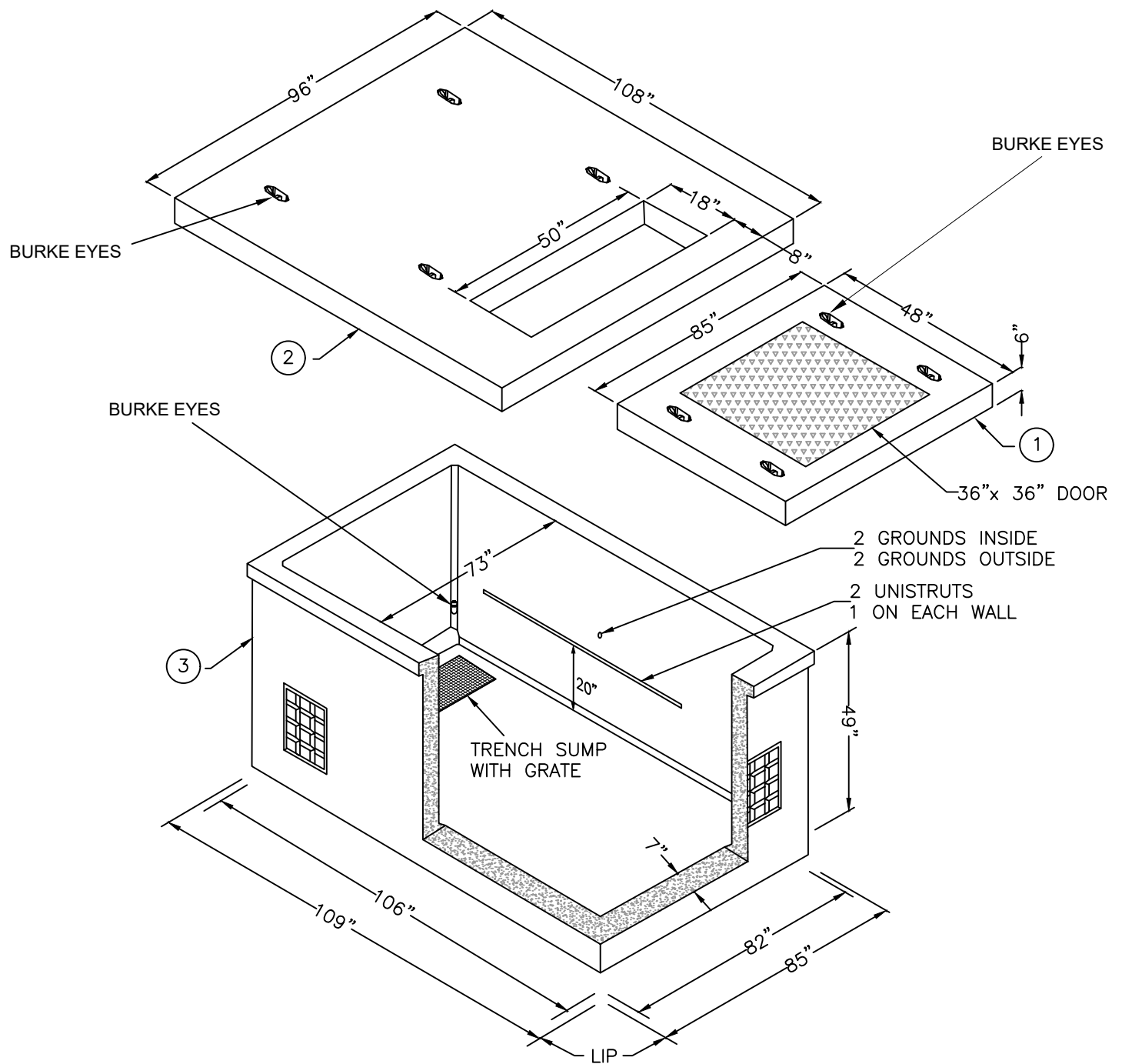
**PRIMARY JUNCTION VAULT  
THREE-PIECE WITH PME SWITCHGEAR LID**

DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

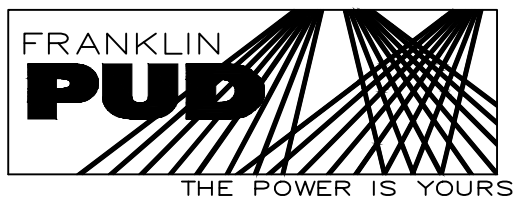
**V.08.05.00**



**NOTES:**

1)SEE ELECTRICAL SERVICE REQUIREMENTS FOR VAULT INSTALLATION GUIDELINES

V.10.03.00.DWG



**VAULT, TRANSFORMER  
3-PH PAD-MOUNT (1000KVA AND ABOVE)**

DWN.  
NAME  
APP.

DATE: 5/08  
UPDATED: 3/23

DWG. NO.

**V.10.03.00**

## SECTION 9. SECURITY LIGHTS SERVICE

### 9.1 Availability

50-watt LED lights are available to residential, general service, and irrigation customers. Security lights will be installed on a Franklin PUD distribution pole where space is available.

### 9.2 Conditions of Service

The pole is owned and maintained by FPUD. Customer will be asked to provide adequate access for a line truck to install and remove the pole.

- For overhead service, FPUD supplies a maximum of 100 feet of conductor.
- For underground service, the customer supplies a trench (36" deep) and 1" PVC – 180° maximum bend. 100-foot maximum length. FPUD supplies conductor.

The Franklin PUD will replace and maintain lamps and control equipment.

### 9.3 Monthly Charge

Charges as per Rate Schedule No. 6, Security Lighting Service Rate available on Franklin PUD's website ([www.franklinpud.com](http://www.franklinpud.com)).

## SECTION 10 - APPROVED EQUIPMENT – METERS BASES

The Department of Labor & Industries requires an integrated disconnect (breaker) with the meter base socket for residential applications. Self-contained meter sockets shall be continuously rated at 200 or 320 Amperes and be ring-type. Integrated meter sockets shall be UL-labeled. Examples of meter sockets meeting FPUD requirements are listed below.

Other manufacturer's equivalent equipment may be acceptable. Please provide vendor cut sheet information for Franklin PUD's Engineering Department review and approval before purchase.

**Customers are to provide all necessary lugs to complete service installation.**

**Franklin PUD Engineering may approve other manufactured meter bases. Please contact FPUD Engineering before making a purchase.**

### 10.1 Single Phase Meters

#### Residential 200 Amp.

|                     |   |
|---------------------|---|
| Eaton CMBEB200BTS   | Overhead or Underground, 1-Phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, Surface Mount, NEMA 3R. Main Disconnect: 200A, 2-Pole, 22k AIC breakers, No Bypass.         |
| Eaton MBEB200BTF    | Recessed Flush mount, 1-Phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, Surface Mount, Bottom or Top Feed, NEMA 3R. Main Disconnect: 200A, 2-Pole, 22k AIC, No Bypass. |
| Milbank U4517-DL-M4 | Overhead, 120/240, 4 Jaw, Meter only.   |

#### Residential 320 Amp.

|               |   |
|---------------|---|
| Eaton U4042MC | Underground service, 400A, 1-Phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, Surface Mount, Bottom feed, NEMA 3R. Main Disconnect: (2) 200A, 2-Pole, 10k AIC breakers, No Bypass.      |
| Eaton U4042MC | Overhead Service, 200A, 1-Phase, 4 Jaw, Ring Type, 3-Wire, w/ CK8326 kit 120/240V, Surface Mount, Bottom or Top Feed, NEMA 3R. Main Disconnect: 200A, 2-Pole, 22k AIC, No Bypass. |
| Eaton U4042MC | Flush Trim, 200A, 1-Phase, 4 Jaw, Ring Type, 3-Wire, w/ FM2438 kit Surface Mount, Bottom or Top Feed, NEMA 3R. Main Disconnect: 200A, 2-Pole, 22k AIC, No Bypass.                 |

**Commercial 200 Amp.**

Self-contained meter sockets shall be rated 200 Amperes continuously for commercial installations, be ring-type, and not require an integrated disconnect.

**Meter bases with lever actuated jaw clamping or lever bypasses are NOT acceptable.**

**Franklin PUD Engineering may approve other manufactured meter bases. Please contact the Franklin PUD Engineering Department before making a purchase.**

|            |   |
|------------|---|
| Eaton U264 | Surface Mount, Underground service, 400A, 1-Phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, Surface Mount, Bottom feed, NEMA 3R. Main Disconnect: (2) 200A, 2-Pole, 10k AIC breakers, No Bypass. This meter base does not include a main disconnect breaker. |
| Eaton U224 | Surface Mount, U224 MTBH MS45 (200A, 1-phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, OH/UG feed, Meter Main, 22 kAIC, TB Bypass).  |
| Eaton U224 | Surface Mount, U224 MTBH MS 15 (200A, 1-phase, 4 Jaw, Ring Type, 3-Wire, 120/240V, OH/UG feed, Meter Main, 22 kAIC, TB Bypass).   |

**Multimeter banks commercial and residential:**

The customer should submit a cut sheet for approval by Franklin PUD Engineering department PRIOR to ordering equipment.



## SECTION 11 - LANDSCAPING GUIDELINES

**Call U-DIG at 811 for free cable location service prior to digging.**

**Contact Franklin PUD Engineering Department with questions.**

Franklin PUD crews need room to work to ensure their safety and the electrical system's safety. Franklin PUD is not responsible for landscaping planted near electrical equipment where access is required. Franklin PUD crews make every effort to maintain landscaping.

Below are guidelines to help you decide when considering landscaping.

### 11.1 Clearances

#### Underground Vaults

- Do not plant trees or shrubs that will grow within 10 feet of the door-side of pad-mounted transformers (padlock side) or switch cabinets when they have reached their full mature size.
- Allow sufficient growing room and anticipate the outside edges of mature plants to be at least two feet from the non-door side of pad-mounted transformers and switch cabinets.
- Planting trees or large shrubs directly above underground electric cables is not recommended and may be damaged during digging or need to be removed. FPUD is not responsible for plant damage from servicing needs or planting in utility easements.

#### Under or Near Overhead Lines

Be sure the trunk and branches will not reach within 10 feet of overhead electric lines when fully grown. For example, a tree with a mature canopy 30 feet wide should be planted at least 25 feet from electric lines. The distance is determined by dividing the mature width of 30 feet by two and adding 10 feet. This equates to 25-foot minimum distance for clearance from current carrying lines.

#### Fences

- May be built around transformers and switch cabinets, but not over them.
- The fence design must not inhibit air movement.
- Fence parts must be easily removable (wall sections) or open (gates).
- Working clearances are the same as in the preceding paragraphs.

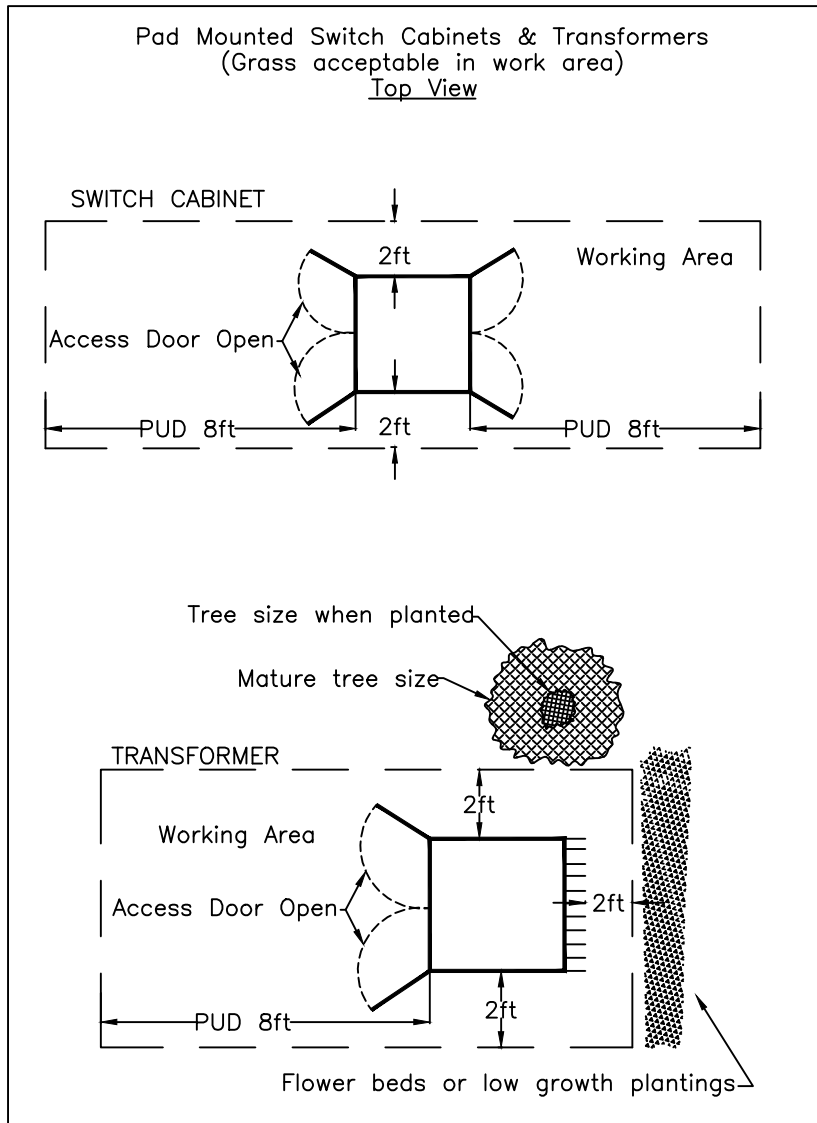
Vaults require additional working area. Square vaults require 8 feet of clearance on 3 sides and 2 feet of clearance on the backside. Grass or other low ground covers are acceptable plant materials within the working clearance area.

#### Pruning Programs

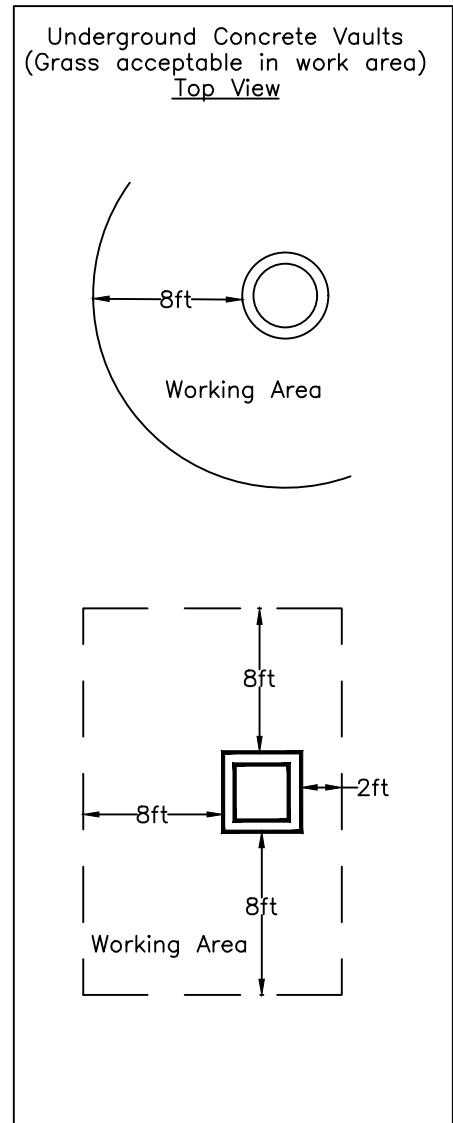
All electric utilities operate regular tree-trimming programs. These programs are inefficient because the results are only temporary and repeated trimming is expensive for ratepayers. Proper placement and careful selection of trees planted now will help to reduce costs.

Franklin PUD makes every effort to remove tree limbs that threaten the electrical system. During routine maintenance, the first 10 feet of individual service lines may be trimmed at the Franklin PUD's discretion. The customer/property owner must arrange and pay for additional trimming from a qualified private service. To promote safety, Franklin PUD will (with 48-hour notice) disconnect and later reconnect individual electric service lines during regular working hours, at no charge, while the trimming is done.

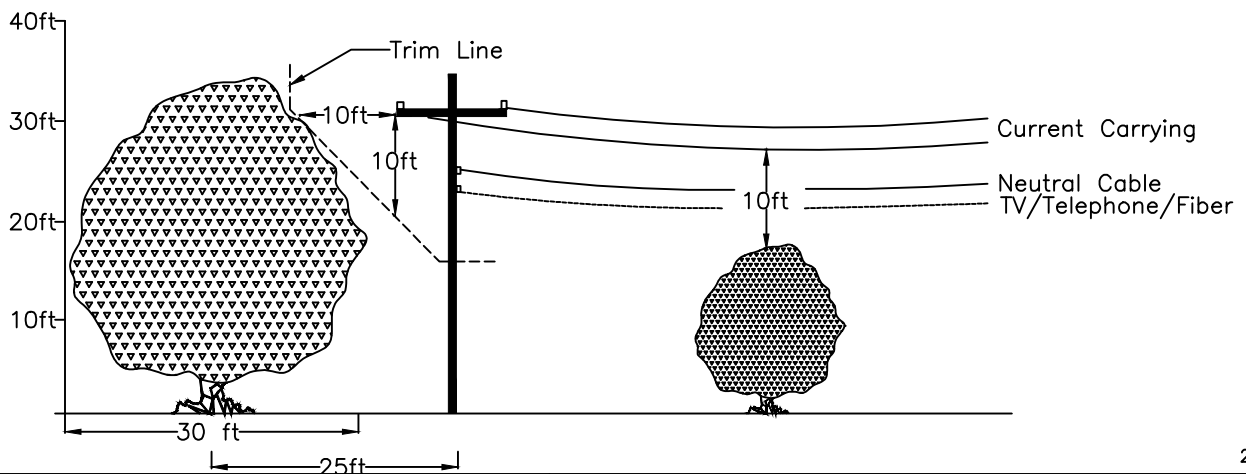
DWG. 1



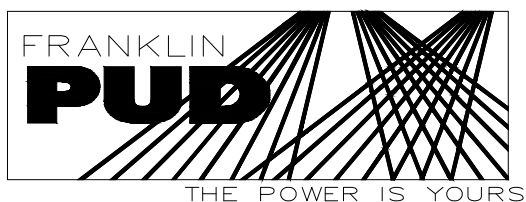
DWG. 2



DWG. 3



205.5.DWG



## LANDSCAPING GUIDELINES

DWN.  
N. RUMMEL  
APP.

DATE: 12/95  
UPDATED: 03/11

DWG. NO.

205.5 Page 58

B. WYATT

## SECTION 12 - SERVICE INSTALLATION FEES & OTHER CHARGES

|  |                   |
|--|-------------------|
| <b>New and Altered Service Request Application Fees</b>              |                   |
| <b>Residential</b>   |                   |
| Single-Phase, 400A or less with self-contained meter                 | \$150.00          |
| Single-Phase, up to 800A CT meter                                    | \$200.00          |
| <b>Commercial/Industrial/Irrigation</b>                              |                   |
| Single-Phase, 200A or less with self-contained meter                 | \$150.00          |
| Single-Phase, up to 800A CT Meter                                    | \$200.00          |
| Three Phase  | \$300.00          |
| Primary Meter  | Franklin PUD cost |
| <b>Excess Secondary Cable - In excess of 100 feet:</b>               |                   |
| Overhead   | \$1.15 per foot   |
| Underground  | \$3.35 per foot   |
| <b>Residential Subdivisions</b>                                      |                   |
| 0-10 Lots  | \$500.00          |
| 11-20 Lots   | \$1,000.00        |
| 21-50 Lots   | \$2,500.00        |
| Greater than 50 Lots   | See Note*         |
| <b>*Note:</b> Please contact the Engineering Department.             |                   |
| <b>Meter Installation</b>  |                   |
| Self-contained meter (1 Phase)                                       | \$195.00          |
| Self-contained meter (3 Phase)                                       | \$340.00          |
| Current transformer CT meter (1 Phase)                               | \$840.00          |
| Current transformer CT meter (3 Phase)                               | \$1,400.00        |
| <b>Secondary Service Installation</b>                                |                   |
| Single-phase, 400A, or less with self-contained meter:               |                   |
| Overhead   | \$315.00          |
| Underground  | \$935.00          |
| <b>Metered Temporary Service -\$200.00, plus metered energy used</b> |                   |
| <b>System Capacity Fee – Residential</b>                             |                   |
| Single-Phase, 400A or less with self-contained meter                 | \$1,750.00        |
| Single-Phase, up to 800A CT meter                                    | \$2,000.00        |
| <b>System Capacity Fee – Commercial/Industrial/Irrigation</b>        |                   |
| Single-Phase, 200A or less with self-contained meter                 | \$2,500.00        |
| Single-Phase, up to 800A CT Meter                                    | \$3,500.00        |
| Three-Phase, 120/208V  | \$15.00 per Amp   |
| Three-Phase, 277/480V  | \$35.00 per Amp   |
| Primary Meter  | Franklin PUD cost |