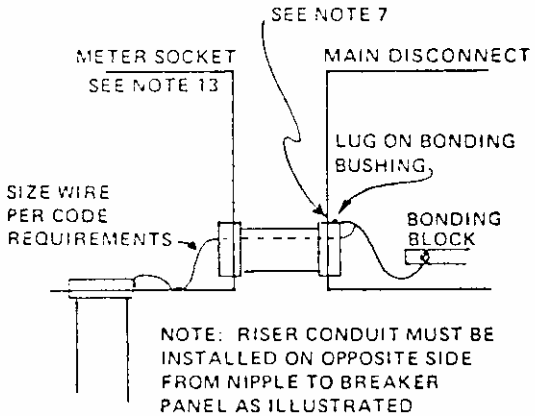
SECTION IV – UNDERGROUND SERVICE

TYPICAL UNDERGROUND SERVICE REQUIREMENTS

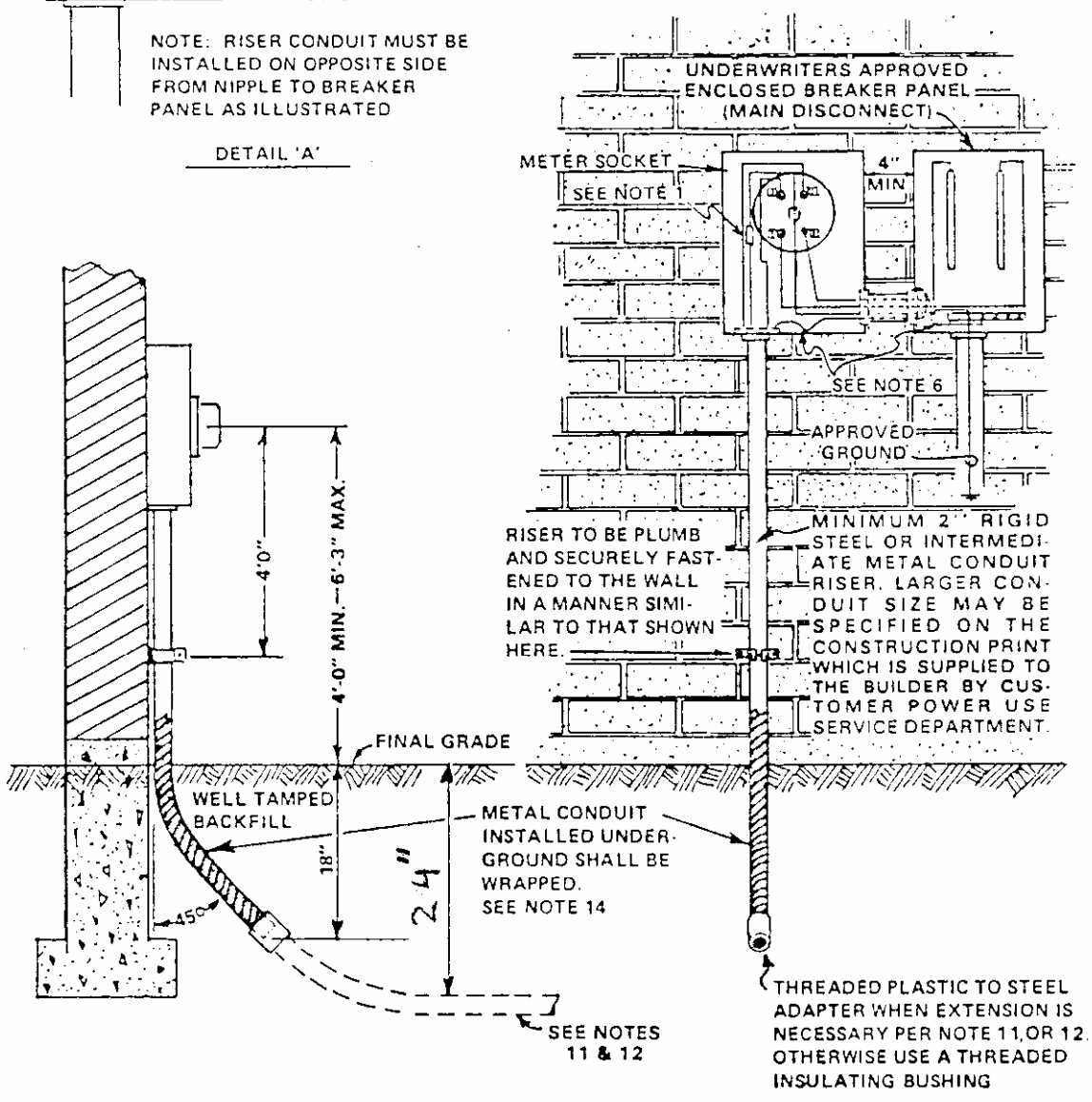
200 Amps Maximum - UG-1



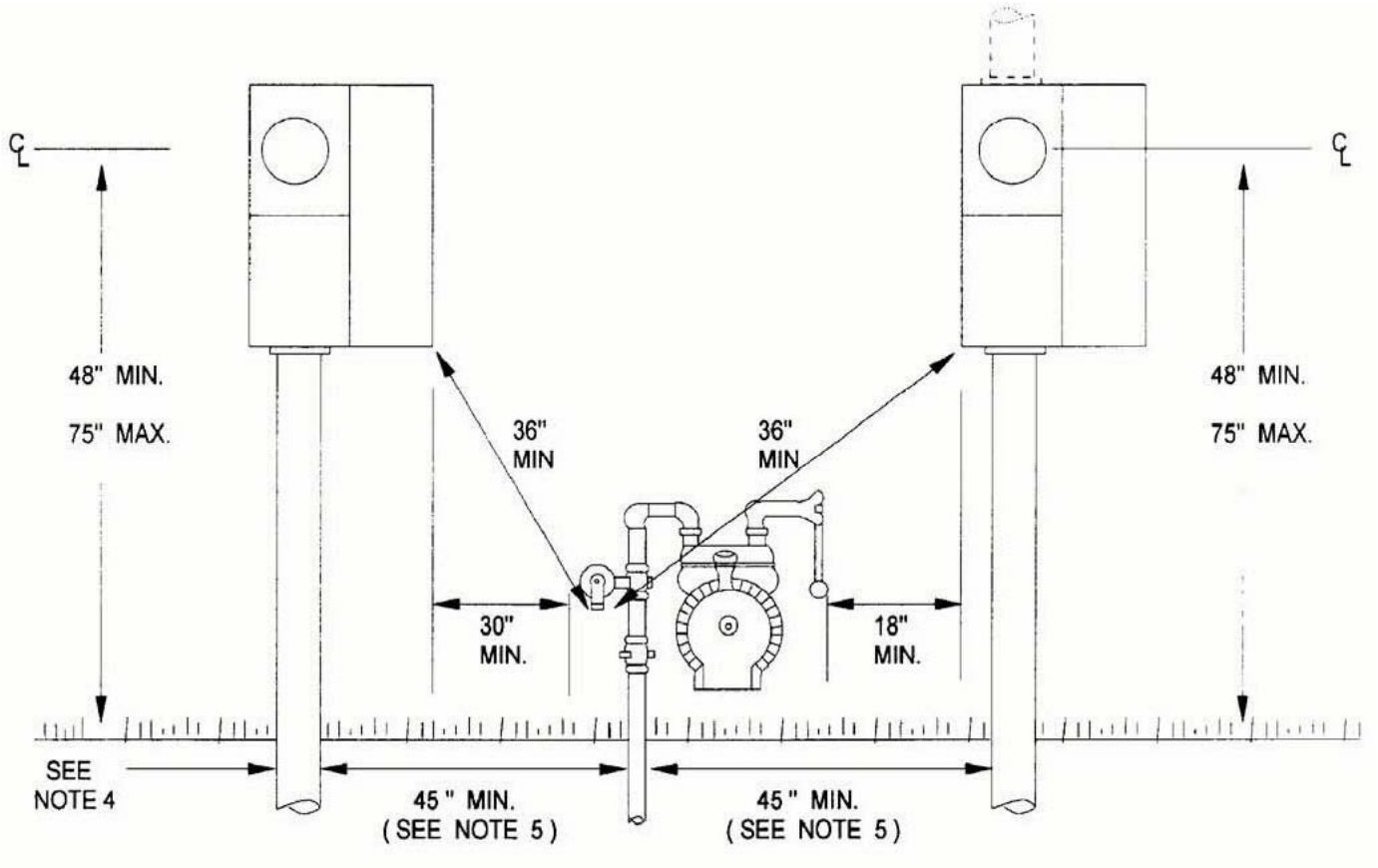
DETAIL 'A'

Meter Location

PEU reserves the right to determine all meter locations & only authorized PEU personnel will determine this location.



T Y P I C A L U N D E R G R O U N D S E R V I C E
R E Q U I R E M E N T S
200 Amps Maximum - UG-1



 # # # This distance applies ONLY where gas and electric meters must be located in proximity.

NOTES:

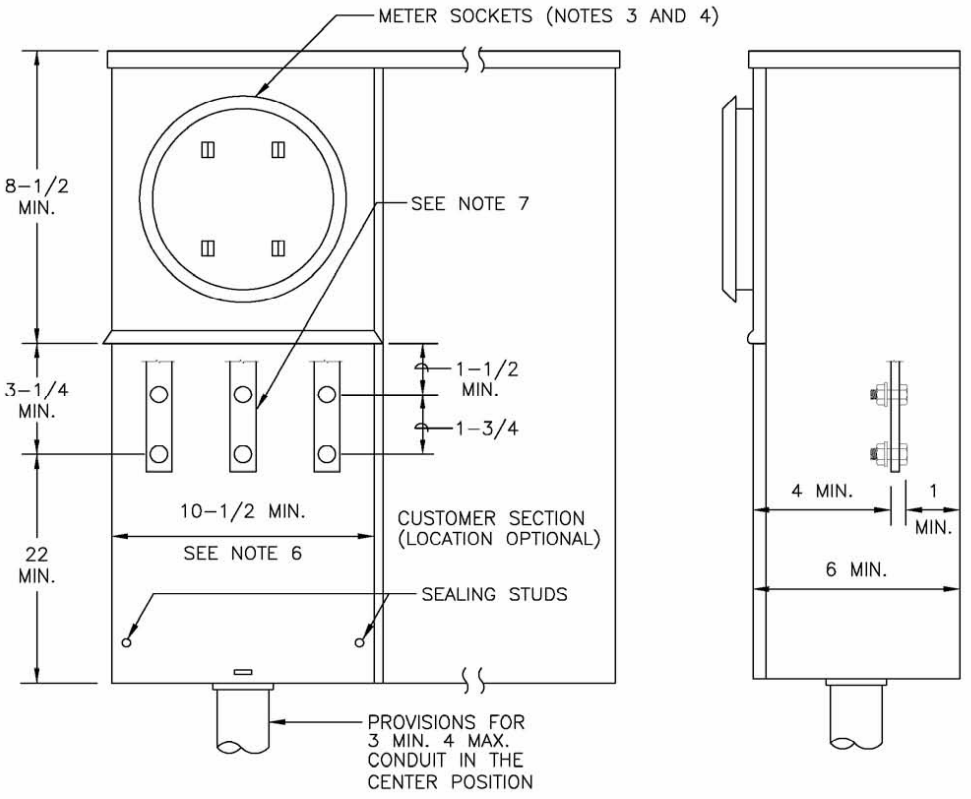
1. Neutral conductor by customer or contractor shall be of code size and will extend into meter socket a minimum length of 18" for connection by PEU. PEU shall supply compression connection and make up the neutral. The meter socket shall have minimum dimensions of 12" wide and 15" high.
2. Ground bushing and bonding required on all unfused nipples and service lateral conduit.
3. Load conductors shall be connected in the meter socket by customer or contractor.
4. The riser shall have a 24" radius sweep (minimum). Metal conduits installed underground shall be wrapped with an approved PVC tape and must overlap a minimum of one half the tape width, to at least 6" above finished grade.
5. Semi-flush meter socket can be used when installation is designed for such a socket. See UG-10.
6. Riser conduit shall be rigid steel or intermediate metal conduit. (Where couplings are necessary they shall be threaded steel.) If riser conduit is not to be extended, it shall terminate with a threaded insulated bushing.

T Y P I C A L U N D E R G R O U N D S E R V I C E
R E Q U I R E M E N T S
200 Amps Maximum - UG-1

7. Meter can and breaker panel shall be bonded together by contractor with separate bonding wire (per code requirements).
8. The bonding bushing on the conduit nipple between the meter can and the distribution panel shall be installed and bonded in the distribution panel, not in the meter socket. See detail "A".
9. Service lateral conductors to be sized and connected to the line side of the meter socket by PEU.
10. Connections in the meter socket to the meter terminals, neutral, and ground bonds are to be inspected by PEU.
11. All wiring shall comply with city, county and/or National Electric Codes.
12. The customer shall provide U.L. approved plastic conduit for PEU service wires from the riser conduit to a point 2' beyond any concrete slab, paved driveway, surfaced area, or where specified by PEU. Customer should also provide a 1" PVC conduit under such an area for telephone wires.
13. In developments where there are townhouses, patio homes or property with zero lot lines, conduit will be extended by customer to the PEU junction box.
14. Sockets for use with self-contained meters are available in two approved ratings. When connected to properly sized entrance conductors, the approved standard-duty socket has a nominal capacity of 200 amperes and must be PUESR approved.
15. The main service disconnecting means shall be located adjacent to and accessible from the same working area as the meter and shall be installed before PEU will install the meter.
16. See M-5 for Meter Socket Clip Arrangement.

RESIDENTIAL UNDERGROUND 400-AMP SERVICE
(Single-Phase Only) - UG-2

PACIFIC UTILITY ELECTRIC SERVICE REQUIREMENTS AS REQUIRED BY PEU



FRONT VIEW SIDE VIEW

NOTES:

1. The panel shown is a combination device having both a utility section (i.e. pull section and metering section) and customer section, but may also be constructed without an attached customer section.
2. The panel shall be marked with either a rating of "320 amperes continuous" or "400 amperes maximum (320 amperes continuous)".
3. The panel shall be provided with a sealing ring and the meter socket shall be rigidly mounted on a support and attached to the meter panel.

ALL DIMENSIONS SHOWN ARE IN INCHES

REV.	DATE	DESCRIPTION		
4	11/00	RENAMED 302A PROJECT #990508		
SCALE N.T.S.		METER PANEL WITHOUT SOCKET BYPASS FACILITY RESIDENTIAL UNDERGROUND SERVICE. 400 AMPERE (CLASS 320), 120/240 VOLT, 1 PHASE 3 WIRE	SHT 1 OF 2	
DATE 11/00		ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE	DWG NO. 302A	REV. 4

RESIDENTIAL UNDERGROUND 400-AMP SERVICE
(Single-Phase Only) - UG-2

PACIFIC UTILITY ELECTRIC SERVICE REQUIREMENTS AS REQUIRED BY PEU

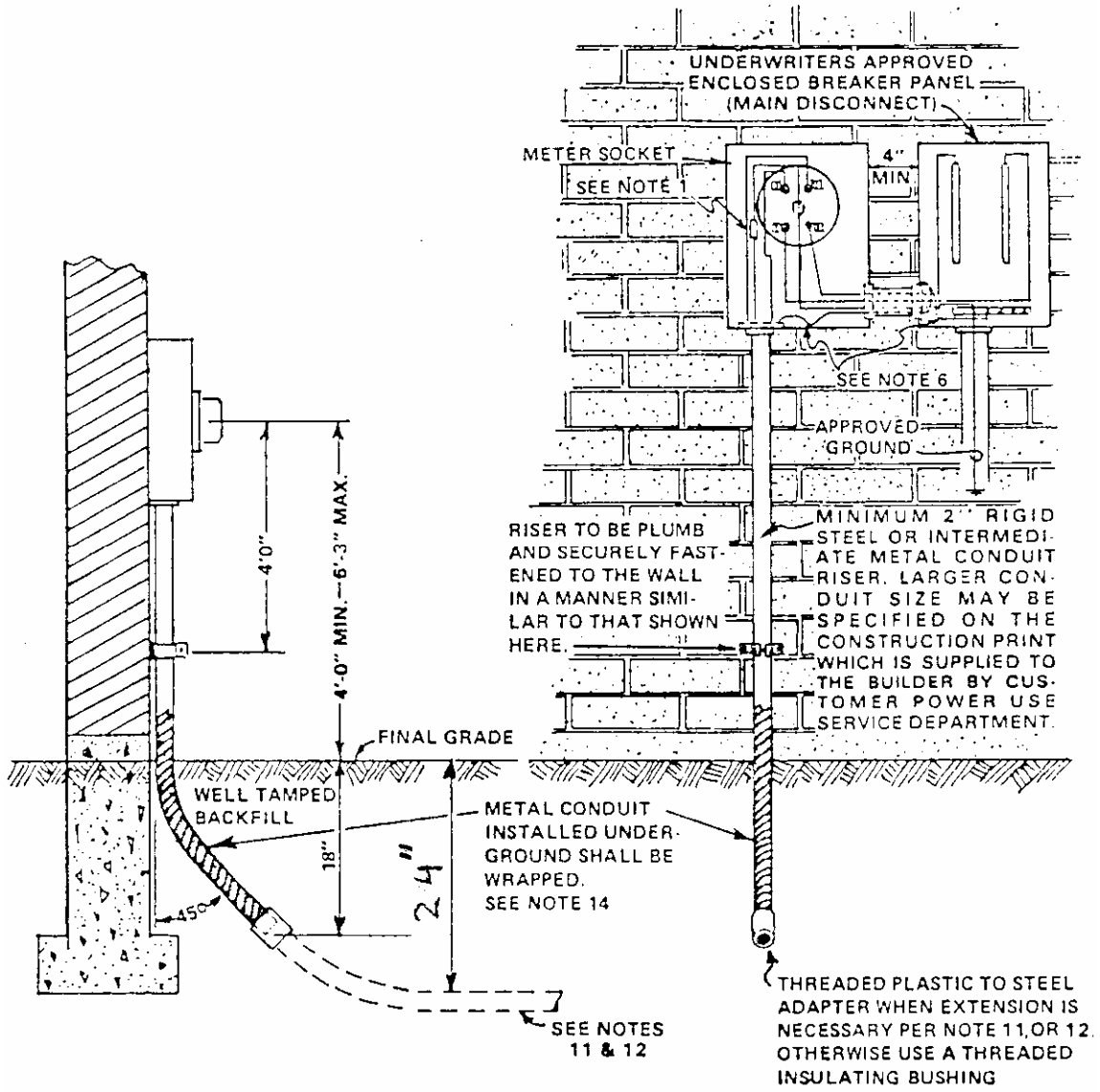
4. The meter socket may be located above, to the left, or right of the terminating pull section.
5. Pull section cover panels shall be removable, sealable, provided with two lifting handles, and limited to a maximum size of 9 square feet in area.
6. The access opening dimension shown is measured between the return flanges.
7. Cable terminating facilities shall consist of single–position studs with clearance and access requirements complying with Drawing 347.

   Exception: The neutral clearance to the back wall of the enclosure may be reduced.

REV.	DATE	DESCRIPTION
4	11/00	RENAMED 302A PROJECT #990508

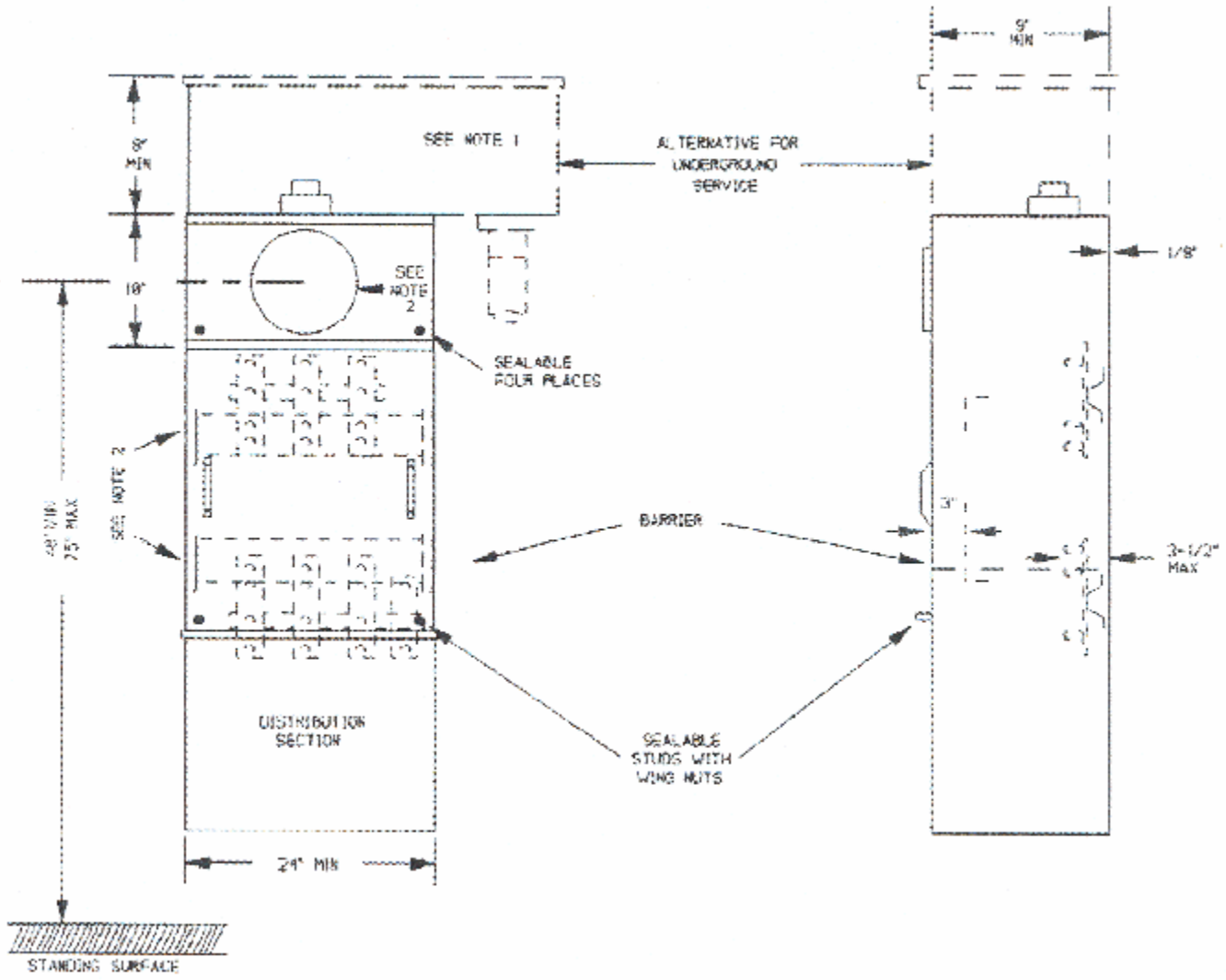
SCALE N.T.S.	METER PANEL WITHOUT SOCKET BYPASS FACILITY RESIDENTIAL UNDERGROUND SERVICE. 400 AMPERE (CLASS 320), 120/240 VOLT, 1 PHASE 3 WIRE	SHT 2 OF 2	
DATE 11/00	ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE	DWG NO. 302A	REV. 4

TYPICAL OVERHEAD TO UNDERGROUND CONVERSION
Maximum 200 Amp - UG-3



1. Service entrance to be installed in accordance with UG-1.
2. The customer shall be responsible for revamping of the service entrance from overhead to underground, as shown on this drawing.
3. The customer shall provide U.L. approved plastic conduit for PEU service wires from the riser conduit to a point 2' beyond any concrete slab, paved driveway, surfaced area or where specified by PEU. Customer should also provide a 1" PVC conduit under such an area for telephone wire.
4. In developments where there are townhouses, patio homes or property with zero lot lines, conduit will be extended by customer to the PEU junction box.
5. Meter location to be determined by PEU.

T Y P I C A L M E T E R I N G I N S T A L L A T I O N
201 - 600 Amps - UG-4 pg.1 of 4



APPLICATIONS:

120/240V. 1Ø 3W
***120/240V. 3Ø 4W**
120/208V. 3Ø 4W
277/480V. 3Ø 4W
480V. 3Ø 3W

***See GI-4 Sheet 1 of 2 for application.**

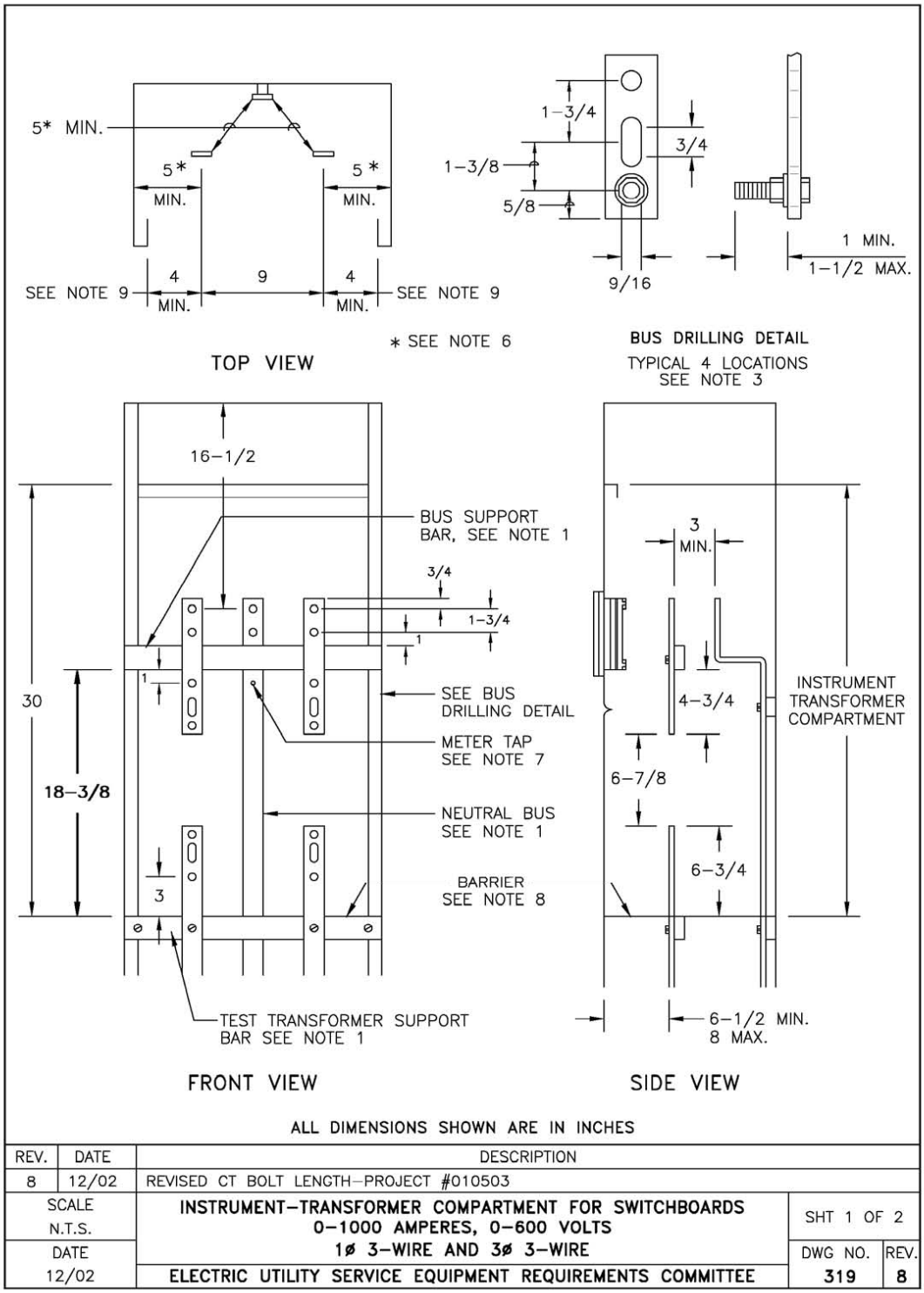
NOTES:

1. Refer to M-8 to determine service riser conduit size. Gutter for underground shall have removable top and shall be sealable.
2. Removable test switch perch and socket cutout shall be drilled and tapped as per EUSERC DWG. 332.
3. Cabinet shall have a sealable cover with two lifting handles and a plate reading **"DO NOT BREAK SEALS, NO FUSES INSIDE."**

T Y P I C A L M E T E R I N G I N S T A L L A T I O N
201 - 600 Amps - UG-4 pg.2 of 4

4. Line side (or supply) conductors shall enter the current transformer area from the top. Load conductors shall exit within 8" of the bottom.
5. All securing screws shall be captive. All panels and covers shall be sealable. Mounting to be per EUSERC DWGS 319 and 320 or other PEU approved mounting base. Depth must be 11" if EUSERC DWG 319 and 320 are used.
6. Service entrance shall be installed in accordance with UG-1.
7. Neutral shall be of code size and will extend into the metering enclosure a length of 24" for connection by PEU.
6. No connections shall be made in the instrument transformer box to supply any other meter, and not more than one load circuit shall leave the transformer box.
7. Line and load conductors shall not be located in the same pull section or pull box.
8.
9. Metal conduit installed underground shall be wrapped. See UG-1, Note 14.
10. PEU furnishes and installs the meter, meter socket, current transformers and test switch.
11. Current transformer mounting base must be per USERC DWG 320.
12. For metering enclosure dimensions, see EUSERC DWG. 332 for 0 to 1000 amps.

TYPICAL METERING INSTALLATION
201 - 600 Amps - UG-4 pg.3 of 4



ALL DIMENSIONS SHOWN ARE IN INCHES

REV.	DATE	DESCRIPTION	
8	12/02	REVISED CT BOLT LENGTH–PROJECT #010503	
SCALE N.T.S.		INSTRUMENT–TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0–1000 AMPERES, 0–600 VOLTS 1ø 3–WIRE AND 3ø 3–WIRE	SHT 1 OF 2
DATE 12/02		ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE	DWG NO. 319 / REV. 8

TYPICAL METERING INSTALLATION
201 - 600 Amps - UG-4 pg.4 of 4

NOTES:

1. Bus arrangement and supports shall be provided as shown, except the neutral bus may be located at either side or on either side wall. Bus supports shall be constructed of a continuous bar of insulating material and shall be rigid to prevent misalignment of the bus units with the cables in place.

2. The bus units may be supplied from the top or bottom, and shall be anchored to prevent turning. Bus units shall be constructed of rectangular bus and when laminated shall have no space between laminations. Bus dimensions shall be provided as follows:

   Minimum: 1/4 inch X 2 inches
   Maximum: 3/4 inch X 2 inches

3. Bus unit shall be provided with a fixed stud as shown for mounting the current transformers. Each shall:

   a. Consist of a 1/2–inch steel bolt and shall be provided with a spring washer and a nut. The spring washer may be either a cone–type (belleville) washer or a split–ring washer and flat washer. All parts shall be plated to prevent corrosion.

   b. Be secured in place. "secured in place" shall mean that the stud will not turn, back–out, or loosen in any manner when tightening or loosening the associated nuts (including cross–threaded situations).

4. When the compartment is supplied from horizontal cross–bussing, the bussing shall pass through the compartment or in the sealed area above the compartment.

5. Except for conductors supplying the instrument–transformer compartment, and the ground bus, no other conductors or devices shall be installed in, or routed through, the compartment or the sealed area above the compartment. The ground bus shall not infringe on utility compartment space, or reduce any clearances. Customer connections to the ground bus shall be allowed in the instrument transformer compartment.

6. A clear unobstructed work pace shall be provided around the current–transformer bus units from the barrier to the upper support bar.

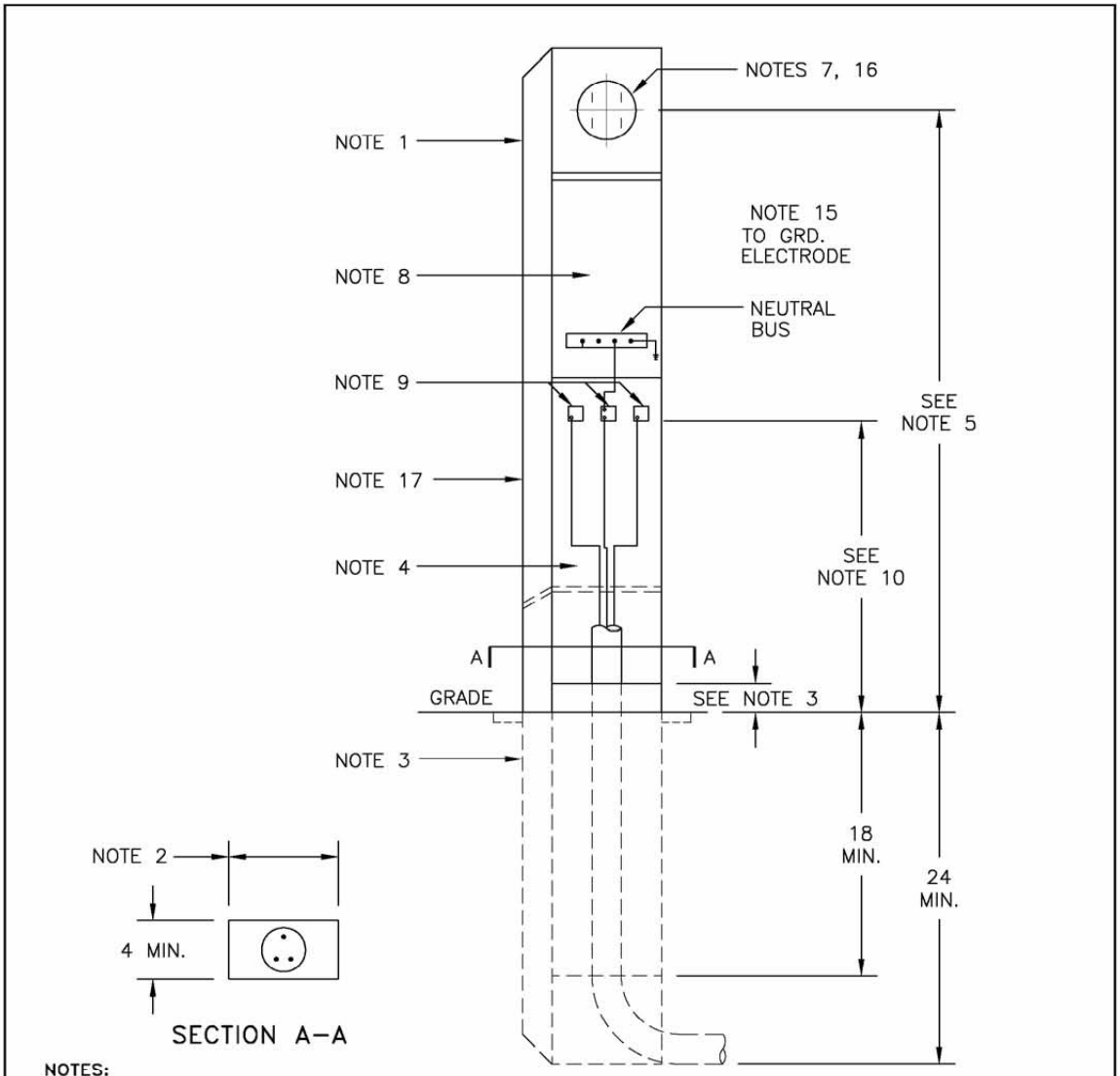
7. Taps for attachment of meter wiring shall be provided on the neutral bus unit shown, or when the compartment is supplied from cross–bussing a tap may be provided on the neutral cross–bus, or on a bus bar extension provided from the neutral cross–bus. A 10–32 screw and washer shall be provided for the neutral bus. Tap locations shall be centered between phase bus units, or at either side, and shall be readily accessible under energized conditions and with the current–transformers in place.

8. The barrier shall be constructed of a rigid insulating material resistant to ARC tracking, and shall be secured in place with a maximum deflection of 1/2 inch from an applied force of 25 pounds downward. Openings in the barrier (i.e., peripheral gaps around barrier, cutouts around bus bars, and hole diameters provided for ventilation) shall not exceed 3/8 inch. The barrier shall be attached with nonconductive fasteners.

9. Dimension measured to inside edge of the compartment access opening.

REV.	DATE	DESCRIPTION		
8	12/02	REVISED CT BOLT LENGTH PROJECT #010503		
SCALE N.T.S.		INSTRUMENT–TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0–1000 AMPERES, 0–600 VOLTS 1ø 3–WIRE AND 3ø 3–WIRE	SHT 2 OF 2	
DATE 12/02		ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE	DWG NO. 319	REV. 8

MOBILE HOME SERVICE METER POST - UG-5



NOTES:

GENERAL CONSTRUCTION:

1. This type post shall have minimum rating of 100 amperes. Construction, material, and corrosive–resistant finish shall be approved by a Committee–recognized test laboratory.
2. Minimum width of access opening shall be 7–1/2 inches.
3. The minimum depth of the post in the ground shall be 24 inches, with openings at the base to permit the service lateral conduit or conductors to sweep into the post from the front (meter side). A fixed panel shall extend 2 inches minimum to 6 inches maximum above grade, and 18 inches minimum below grade.

ALL DIMENSIONS SHOWN ARE IN INCHES

REV.	DATE	DESCRIPTION
4	08/97	REVISE LUG DESIGNATION IN NOTE 9 – PROJECT #961120

SCALE N.T.S.	UNDERGROUND SERVICE AND METER POST FOR MOBILE HOME OR NON–COMMERCIAL USE 200 AMPERES MAXIMUM, 240 VOLTS MAXIMUM	SHT 1 OF 2	
DATE 08/97		DWG NO. 307	REV. 4
	ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE		

4. Adequate ventilation shall be provided to inhibit the condensation of moisture within the enclosure.

5. The minimum meter height shall be 36 inches above the grade line when the meter is enclosed or 48 inches when exposed. Consult the serving agency for permissible deviations.

6. The service cable pull and terminating section shall be accessible from either the front or rear of the post by removing an 8 inch minimum width sealable panel (or panels). The removable panel (or panels) shall extend from the top of the fixed panel (See note 3) and when removed, allow full access to the terminating lugs. The service cable pull and terminating section space shall be restricted to serving agency use.

7. If the meter is enclosed, the enclosing cover shall be hinged and self–supporting, equipped with a reading window and be removable for meter testing of inspection.

8. The service main disconnect and power outlet section shall have barriers installed to prevent access to the service cable pull and termination section and to unmetered conductors which connect to the socket.

TERMINATING FACILITIES, WIRING AND CONNECTIONS:

9. Termination for service conductors shall be aluminum–bodied mechanical lugs accepting two sets of conductors with a range of No. 2 AWG through 350 KCMIL (consult the utility for permissible deviations).

10. Lug height, measured from the bottom of the terminating lug from the top of the fixed panel, shall be a 18 inches minimum to 48 inches maximum.

11. The space between the lugs, from lugs to sides of post, from lugs to any grounded surface, or from lugs to panel above, shall be 1–1/2 inches minimum. Rigid insulating barriers, projecting 1/4 inch minimum beyond any energized parts, are required when the required lug spacing is reduced.

12. Terminating lugs may be positioned either in line or staggered and access shall be unobstructed when all service conductors are in place.

13. The conductors which extend to the meter socket shall be connected at the service terminating lugs independently of the connection for the service laterals.

14. The pedestal shall be factory–wired from the service terminating lugs to the meter socket. The conductors shall be located in a separate or barriered raceway.

GROUNDING FACILITIES:

15. An accessible equipment grounding lug shall be provided.

METERING FACILITIES:

16. Meter panel shall be provided with a sealing ring and the meter socket shall be rigidly mounted on a support and attached to the meter panel.

ENCLOSURE ATTACHMENTS:

17. For authorization to attach telephone and cable TV terminating facilities to the post, consult the serving agency.

REV.	DATE	DESCRIPTION		
4	08/97	REVISE LUG DESIGNATION IN NOTE 9 – PROJECT #961120		
SCALE N.T.S.		**UNDERGROUND SERVICE AND METER POST FOR MOBILE HOME OR NON–COMMERCIAL USE 200 AMPERES MAXIMUM, 240 VOLTS MAXIMUM**	SHT 2 OF 2	
DATE 08/97		**ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE**	DWG NO. **307**	REV. **4**

MOBILE HOME SERVICE METER POST - UG-5

INSTALLATION PROCEDURES AND INSTRUCTIONS FOR SINGLE METER INSTALLATIONS

1. The customer will be responsible for the installation of all required conduit and the meter post, located per PEU design. The installation shall be in accordance with any applicable city or county codes.
2. After the municipal clearance has been received by PEU and all customer trenching and conduit installation has been completed per PEU specifications, PEU will install the necessary conductors and related equipment to energize the service entrance. A meter will be furnished and installed by PEU at this time. The main breaker must be installed before PEU will set a meter.

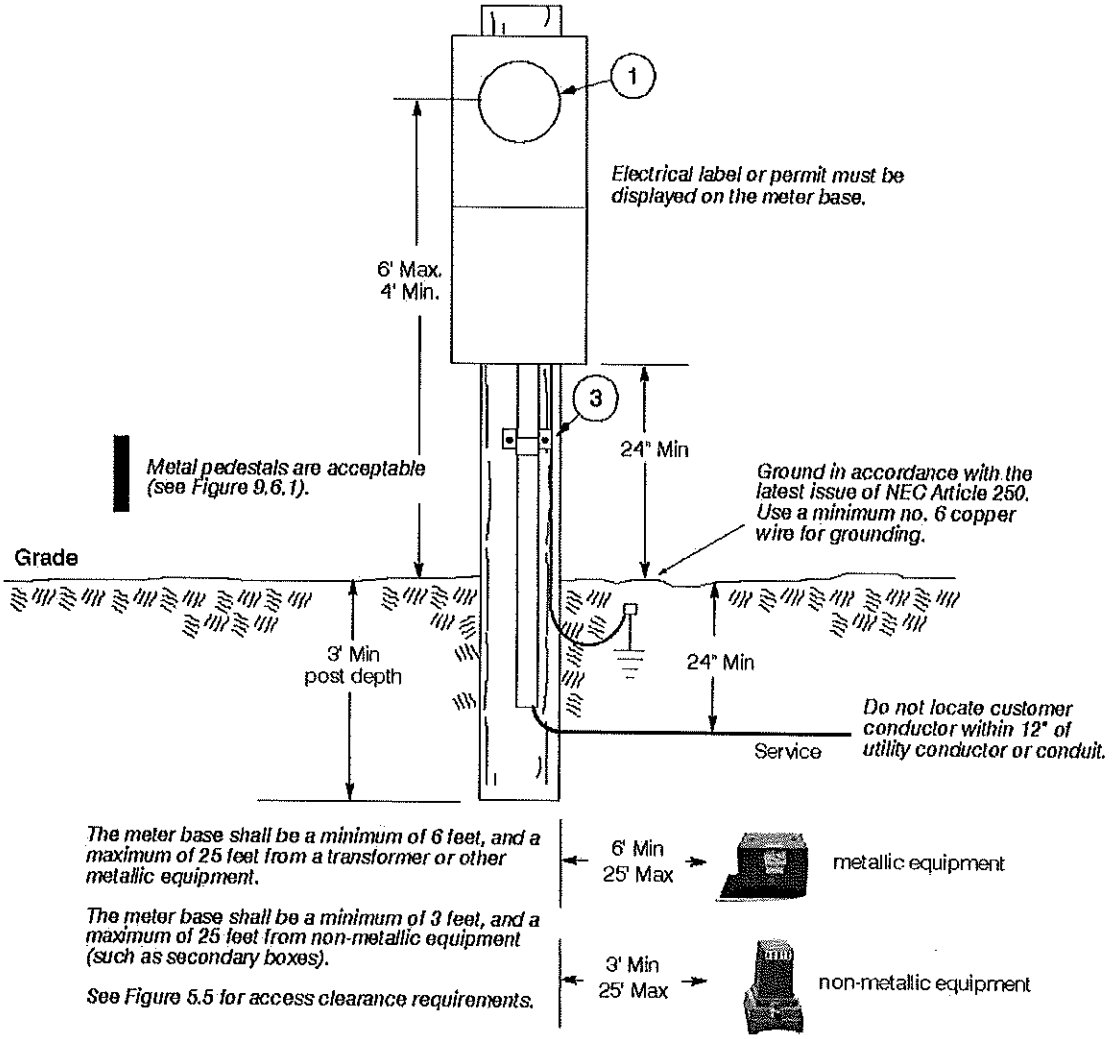
INSTALLATION PROCEDURES & INSTRUCTIONS FOR MOBILE HOME OR RV PARK-TYPE MULTIPLE METER INSTALLATIONS:

1. The customer or developer will be responsible for the installation of all required conduit and the meter post(s) located per PEU design.
2. PEU will install conductors from the utility source to meter post utilizing the customer installed conduit only after acceptance of trench depth and conduit installation.
3. Clearances between meter post and other utilities shall conform to applicable codes and/or regulations.
4. The developer or his contractor will:
   a. Set the electric meter post in place over the customer installed conduit with the pull section panel removed from the post to allow the conduit to extend up into the post 4"-6".
   b. Install and connect a #4 AWG minimum copper grounding conductor from a metallic system water pipe or grounding electrode to the grounding lug per applicable code. City of Page Building Department- 928-645-4260.
   c. Backfill around the post to provide good support, plumb and level the post and pour concrete island. The grade or ground line should be approximately 2" below the removable pull section panel of the meter post. In no case shall conductors be encased in concrete.
5. PEU will connect the service lateral conductors to the landing lugs in the meter post, install & seal the pull section panel, blank off & seal the meter sock ring.
6. PEU will set the meter where the necessary request for service has been made & after all code requirements have been met & approval clearances issued, all meter posts being fed from a transformer must be installed before an individual meter post can be energized.
7. The main breaker must be installed before PEU will set a meter.
8. Where more than one post is to be installed per utility island, consult PEU.

SPECIAL APPLICATION METER SERVICE POST
120 VOLT, 2-WIRE, 30 AMP - UG-5.1

Contact Utility office for information pertaining to special applications.

TEMPORARY SERVICE METER POST - UG-7

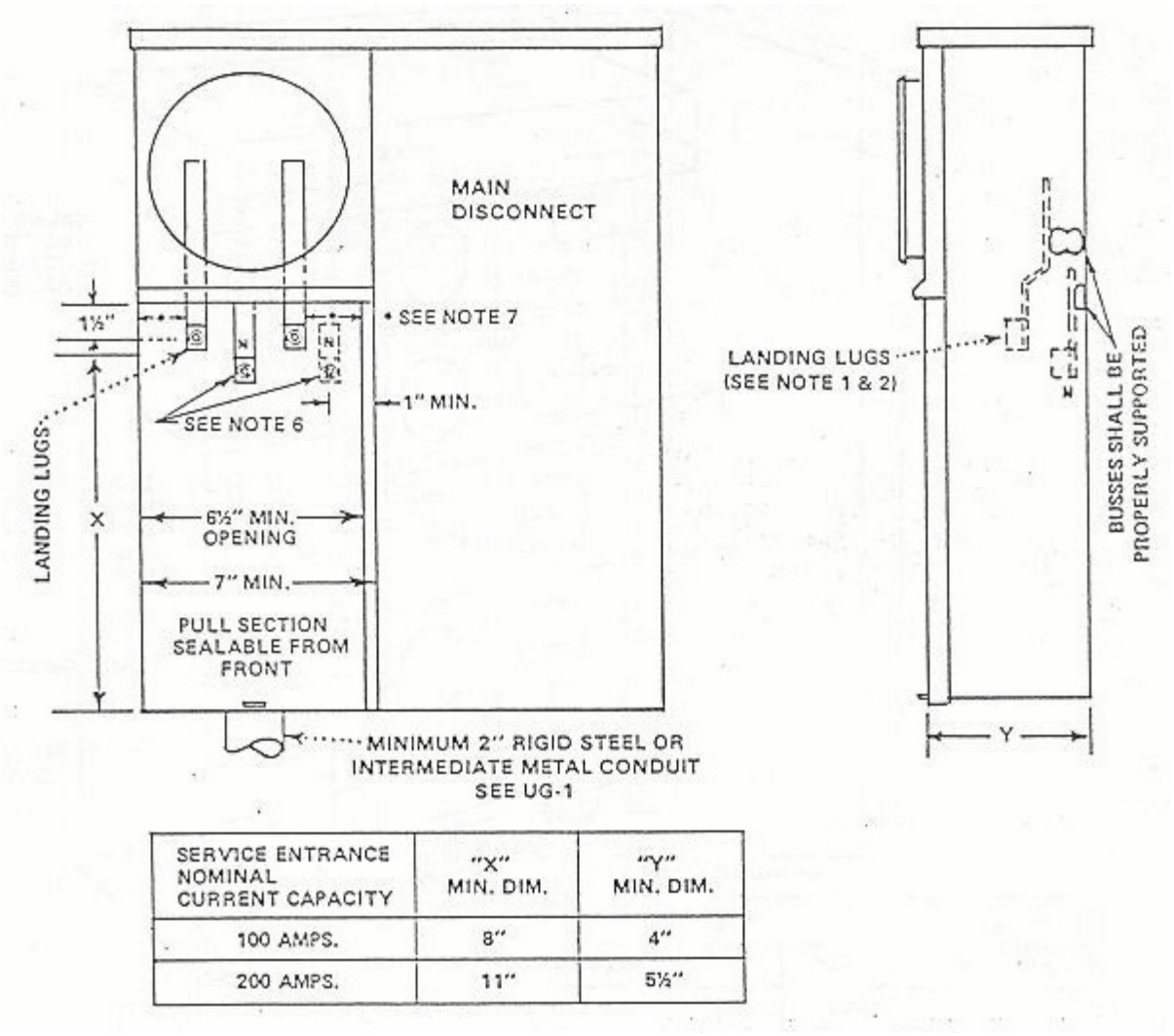


Additional Requirements:

1. The meter socket and service equipment shall be NEMA type 3R (rainproof), in good condition with no holes, dents or damage, and plumb in all directions. Safety sockets with bypass provisions are required for direct-connect 480 V single-phase and all three-phase temporary services.
2. The customer's minimum conductor size is No. 2 copper or 1/0 aluminum. The customer-supplied conductor shall, at minimum, be long enough to connect to the Power Company terminals.
3. Conduit must be rigidly fastened to the post.
4. The post is customer-owned and shall be made of pressure or thermally treated wood with a minimum size of 4"x4".
5. A main breaker is required in post installations.

Note: The customer also owns the conduit, conductor and meter socket.

COMBINATION PULL & METER BOX - UG-8

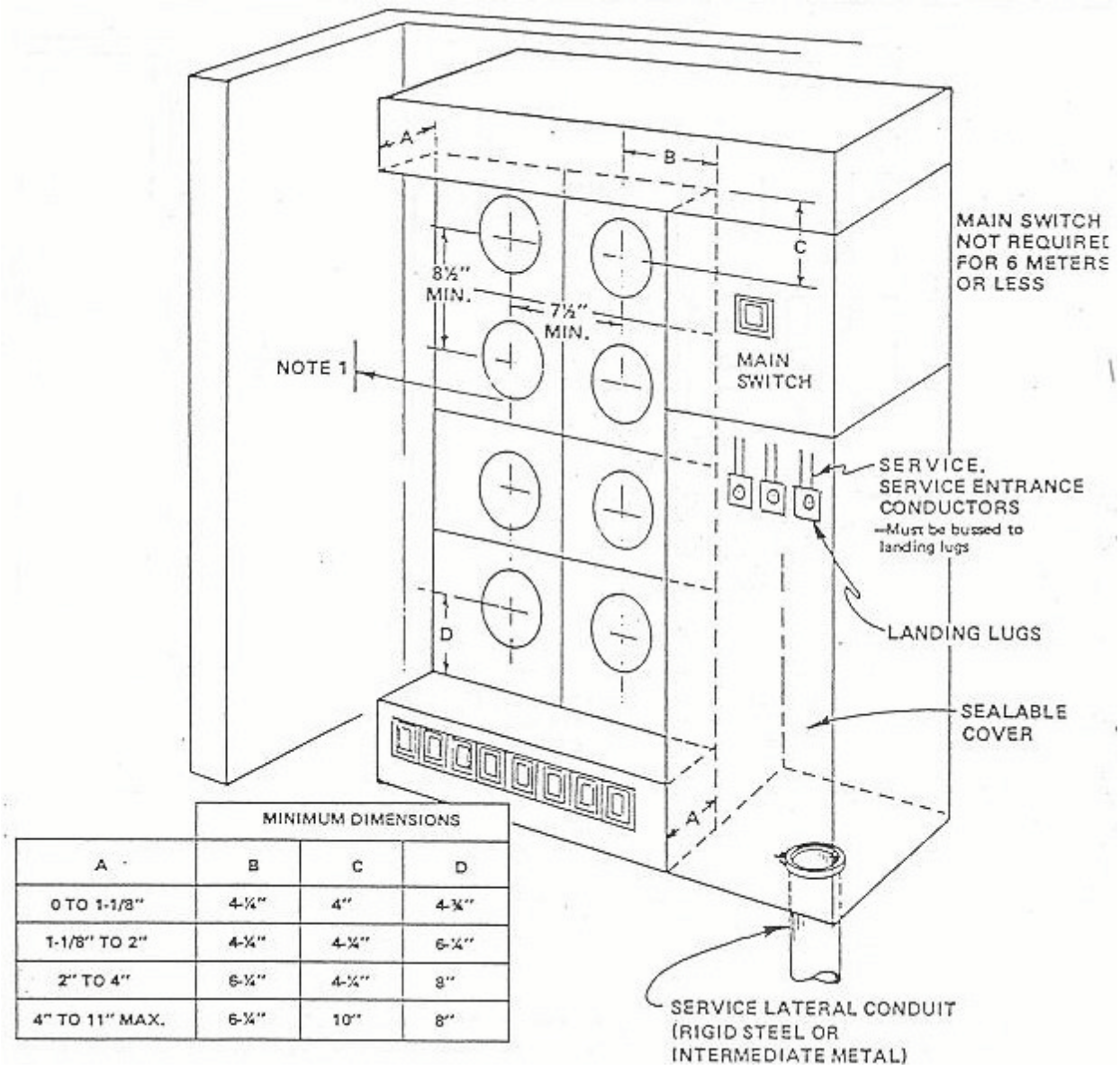


SERVICE ENTRANCE NOMINAL CURRENT CAPACITY	"X" MIN. DIM.	"Y" MIN. DIM.
100 AMPS.	8"	4"
200 AMPS.	11"	5½"

NOTES:

1. Landing lugs in pull section shall be CU/AL rates.
2. PEU will connect the service conductors directly to the landing lugs.
3. Bonding according to code shall be installed prior to installation of underground service conductors.
4. Service lateral conduit shall enter the bottom of pull section.
5. Residential pull boxes shall be accessible without entering the building and when exposed to the weather shall be rain tight.
6. Neutral may be on side, middle or staggered, but not more than 2½" below hot bus terminals. If insulated from enclosure, provide a bonding screw or jumper.
7. A minimum radial clearance of 1½" shall be provided between hot bus terminals and ground or neutral surfaces.

M U L T I P L E M E T E R I N G - UG-9

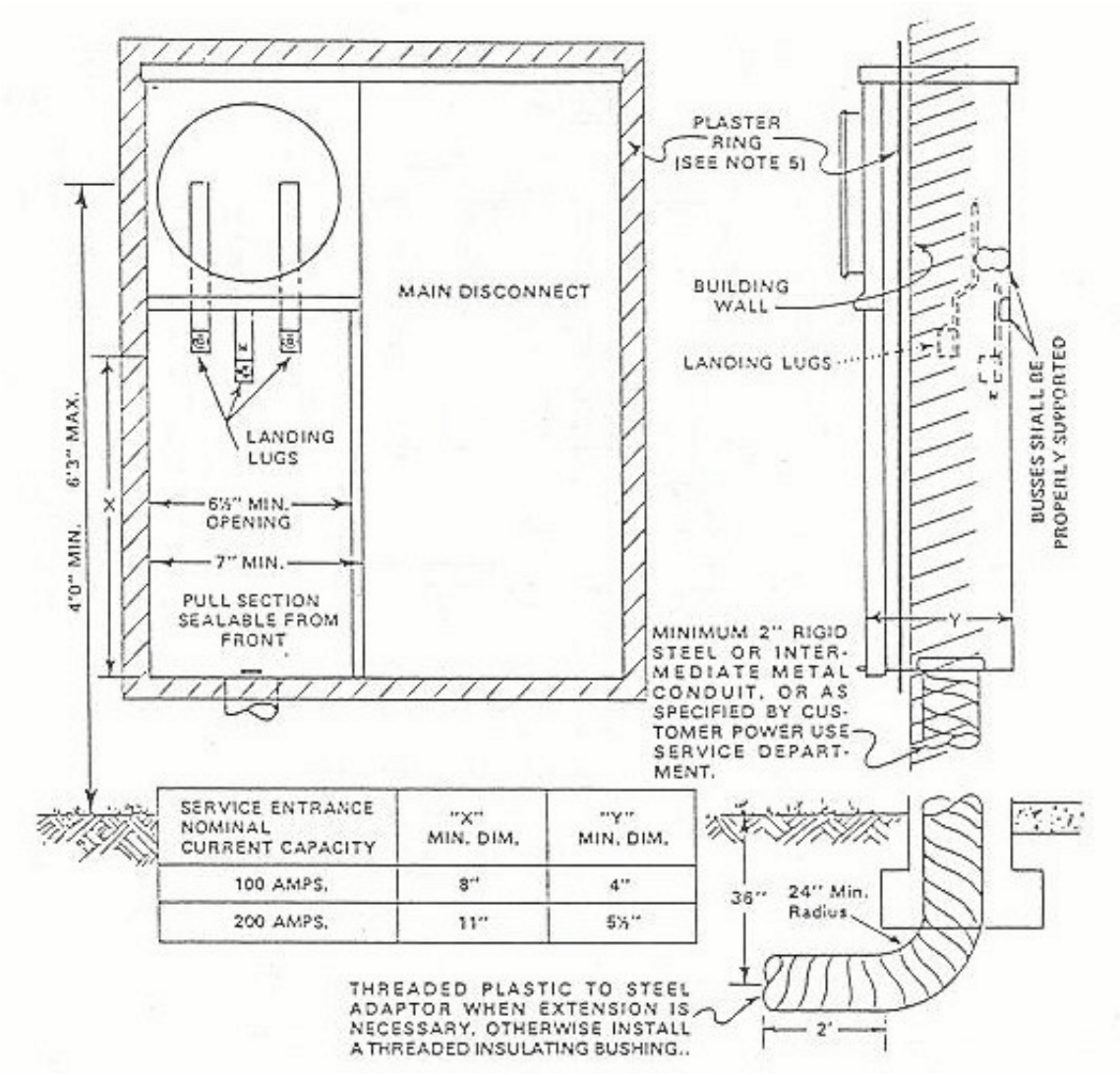


	MINIMUM DIMENSIONS		
A	B	C	D
0 TO 1-1/8"	4-¼"	4"	4-¾"
1-1/8" TO 2"	4-¼"	4-¼"	6-¼"
2" TO 4"	6-¼"	4-¼"	8"
4" TO 11" MAX.	6-¼"	10"	8"

NOTES:

1. Where an adjacent wall or other obstruction extends more than 11" perpendicular from the face of the meter panel, a 10" minimum dimension to the meter socket axis is required. For obstructions extending 11" or less from the meter panel, the side clearance shall conform to that of Dimension "B".
2. Not more than two sockets shall be placed on any removable cover.
3. Underground landing lugs shall be placed under a separate sealable cover.
4. Dimension "B" shall be increased by the amount that the main switch door, including operating handle, reduces the clearance when opened 90□.
5. See, M-4 for meter maximum and minimum heights.
6. Grounding shall comply with NEC or prevailing inspection agencies.
7. Distribution conductors shall be barriered from metering compartment.
8. Refer to M-8 to determine service riser conduit size.

TYPICAL SEMI-FLUSH COMBINATION PULL & METER BOX - UG-10

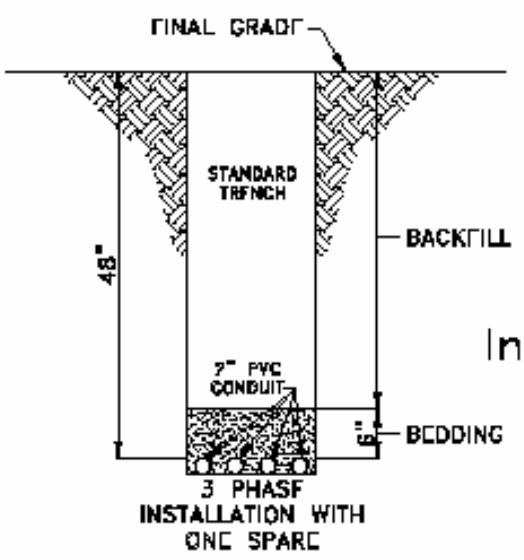


SERVICE ENTRANCE NOMINAL CURRENT CAPACITY	"X" MIN. DIM.	"Y" MIN. DIM.
100 AMPS.	8"	4"
200 AMPS.	11"	5½"

NOTES:

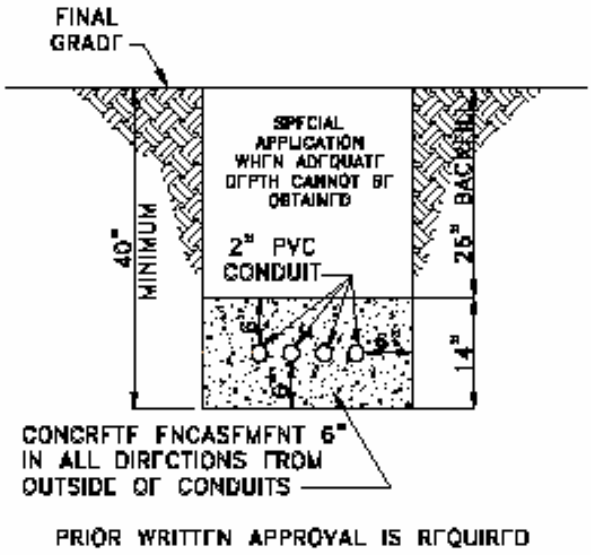
1. Meter location to be determined by authorized PEU personnel.
2. See M-5.1 for Meter Socket Clip Arrangement.
3. Service entrance to be installed in accordance with UG-1, UG-4 or UG-9 as applicable.
4. Riser conduit shall be rigid steel or intermediate metal, installed per NEC 230-44. Metal conduit installed underground or in concrete shall be wrapped with an approved PVC tape & must overlap a minimum of 1/2 the tape width to a minimum of 6" above ground level.
5. The customer shall provide U.L. approved plastic conduit from the end of the riser conduit to a point 2' beyond any concrete slab, paved driveway, surface area or where specified by PEU.
6. Only factory manufactured service entrance equipment with a plaster ring will be approved. No field alterations of service entrance equipment will be accepted.
7. Service equipment shall be installed so that the front panels may be removed without damaging the service equipment or the building.

UNDERGROUND TRENCH DETAILS - UG-11



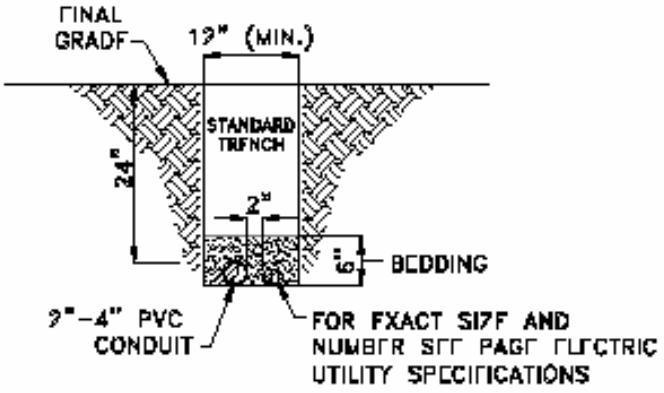
NTS

Page Electric Primary Installations



NTS

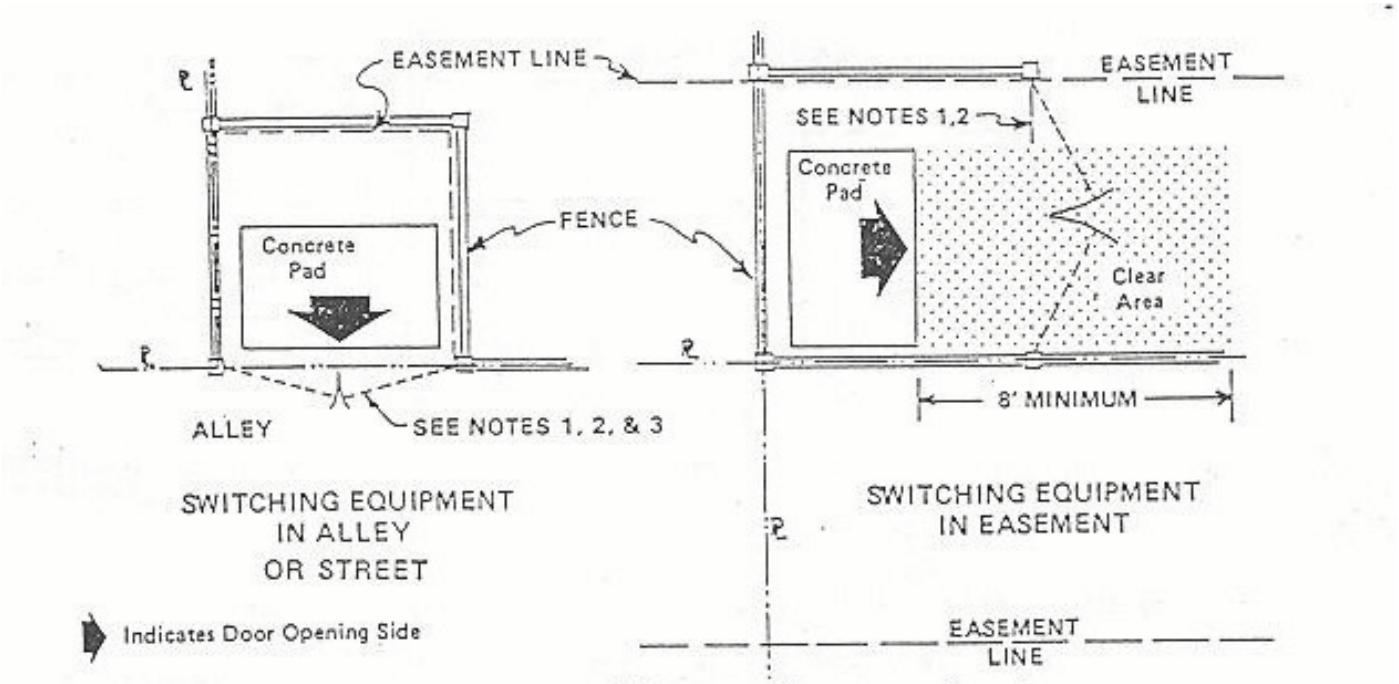
Secondary & Service Installations



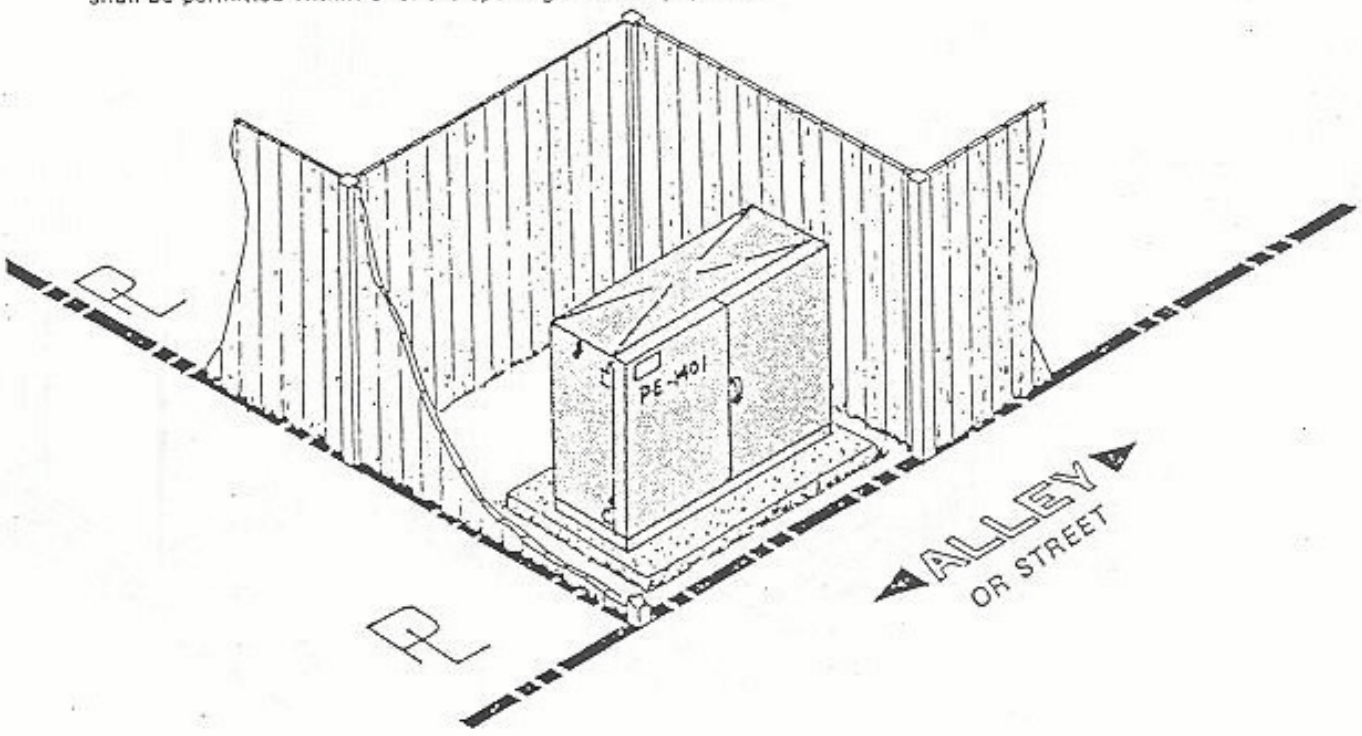
NTS

CUSTOMER FENCING OR OBSTRUCTIONS ADJACENT TO PEU SWITCHING INSTALLATIONS - UG-12

CAUTION: BURIED HIGH VOLTAGE CABLE! CALL ARIZONA BLUE STAKE BEFORE DIGGING NEAR EASEMENT @ 1-800-STAKEIT - 1-800-782-5348.

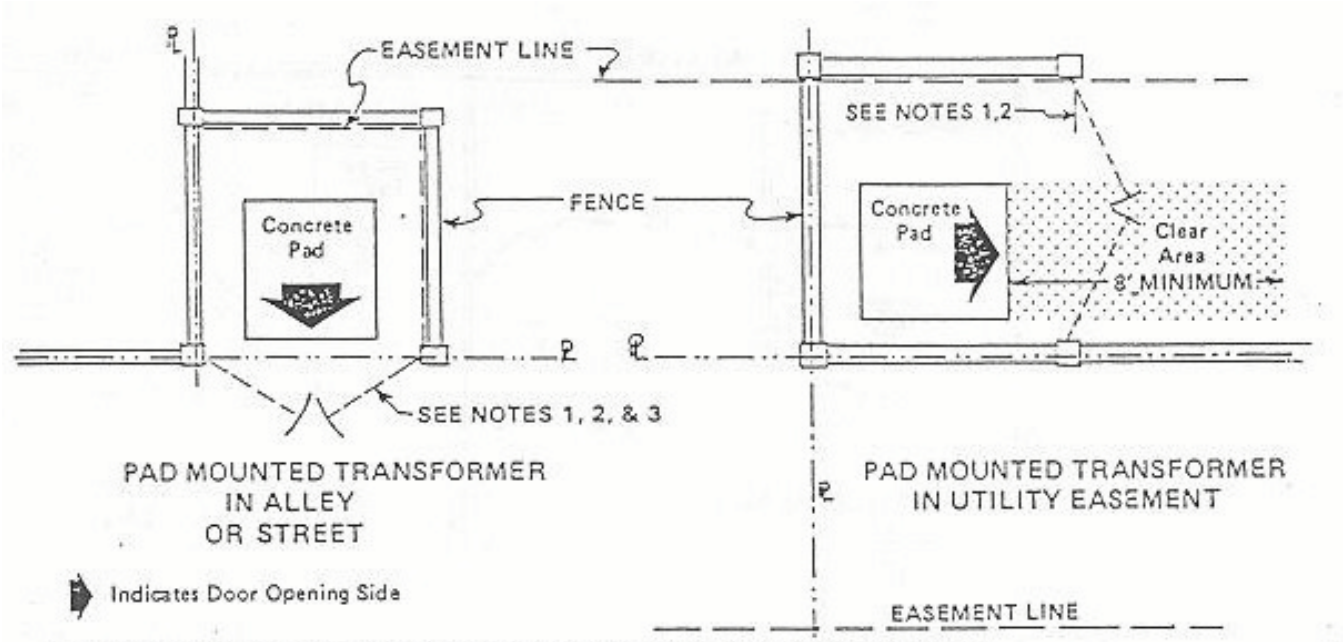


1. Do not build fence, support posts, or gate posts inside easement lines or over equipment.
2. A gate, the full width of the opening, as illustrated, is permissible. Gate may be of solid material if 6 inch clearance for ventilation is maintained between bottom of gate and ground level. Gate allowed lower than 6 inches if constructed of mesh, bar, louver or similar ventilating material. Gate must be free of locks which would inhibit access by utility personnel. Any gate must be furnished by customer.
3. No obstruction, including but not limited to, fences, trees, shrubs or similar other large vegetation and large rocks, shall be permitted within 8' of the opening side of equipment.

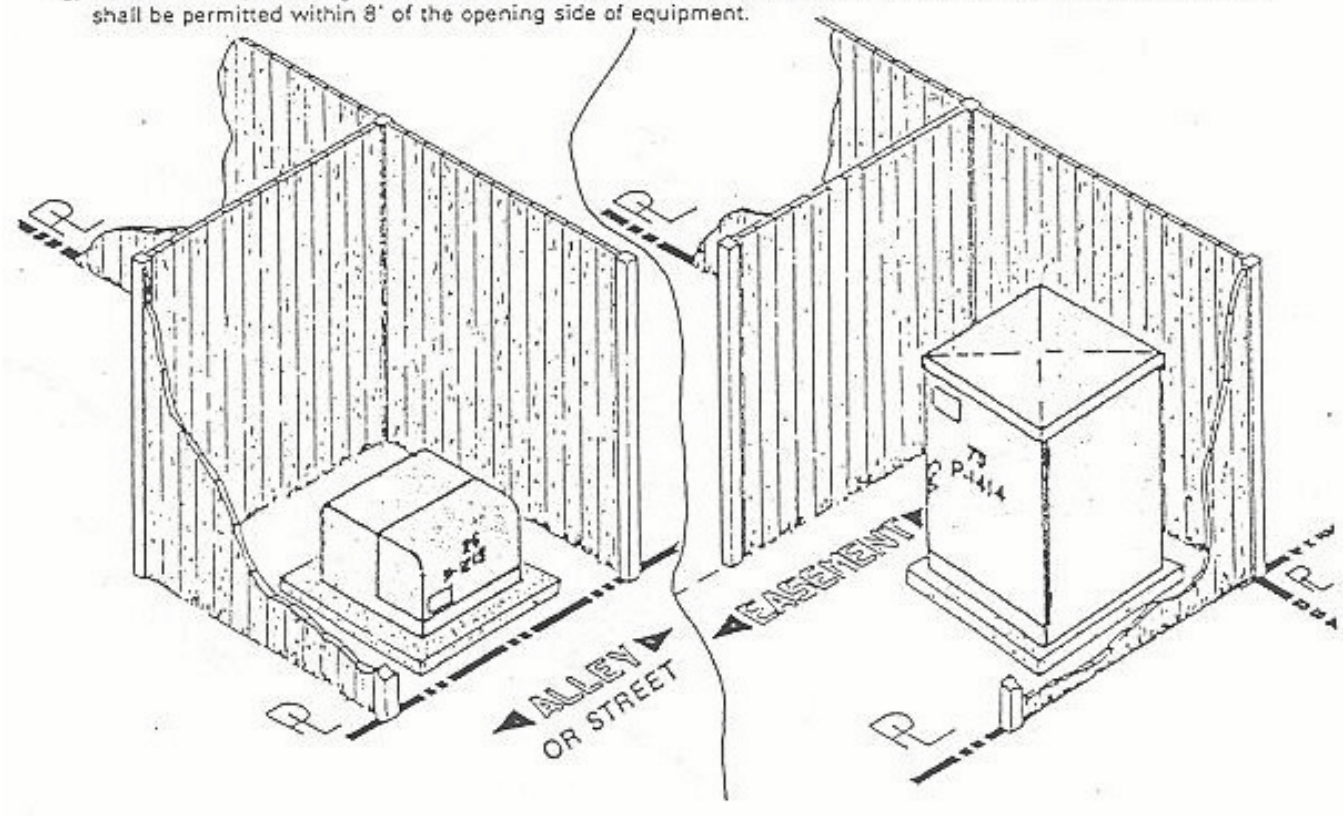


CUSTOMER FENCING OR OBSTRUCTIONS ADJACENT TO PEU SWITCHING INSTALLATIONS - UG-13

CAUTION: BURIED HIGH VOLTAGE CABLE! CALL ARIZONA BLUE STAKE BEFORE DIGGING NEAR EASEMENT @ 1-800-STAKEIT - 1-800-782-5348.



1. Do not build fence, support posts, or gate posts inside easement lines or over equipment.
2. A gate, the full width of the opening, as illustrated, is permissible. Gate may be of solid material if 6 inch clearance for ventilation is maintained between bottom of gate and ground level. Gate allowed lower than 6 inches if constructed of mesh, bar, louver or similar ventilating material. Gate must be free of locks which would inhibit access by utility personnel. Any gate must be furnished by customer.
3. No obstruction, including but not limited to, fences, trees, shrubs, or similar other large vegetation and large rocks, shall be permitted within 8' of the opening side of equipment.



CUSTOMER OWNED DUSK-TO-DAWN SPECIFICATIONS - UG-14

Contact Utility office for information pertaining to special applications of customer owned dusk to dawn lighting accounts.

SWIMMING POOL ENCROACHMENTS IN UNDERGROUND UTILITY EASEMENTS - UG-15

CAUTION: When laying out pool, call Arizona Blue Stake @ 1-800-STAKEIT or 1-800-782-5348 for location of underground facilities.

Other utilities have encroachment provisions similar to PEU. However, these specifications apply only to PEU power facilities. Pool installer must also obtain permission from any other utility/municipality which may have an interest in the easement. The approval of PEU for swimming pool encroachment does not carry with it the approval of any other utility, nor vice versa.

Page Electric Utility applies the following restrictions to swimming pool encroachments into utility easements based on the guidelines of the National Electric Safety Code:

Three-Foot Side Lot Easements

1. If there are no existing facilities or plans for future facilities, encroachment may be granted. Written approval is required.
2. Where facilities exist, no encroachment will be granted.

Individual Services and No Side Lot Easements

1. Construction is prohibited within 2' horizontally staked facility. If the pool is to be constructed closer than this, the relocation will be at the customer's expense.
2. The customer will be responsible for the cost of enclosing cable in conduit when it is to be located under cool decking.

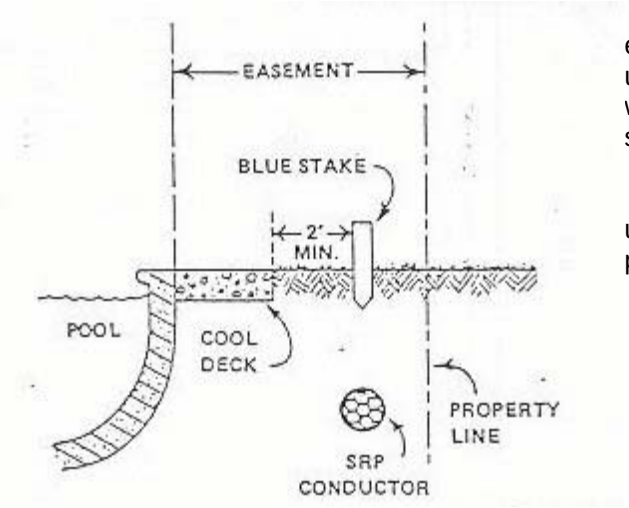
FOR FURTHER INFORMATION CONTACT:

PAGE ELECTRIC UTILITY
19 Poplar Street
P.O. Box 1955
Page, AZ 86040
(928) 645-2114
(928) 645-2419

SWIMMING POOL ENCROACHMENTS IN UNDERGROUND UTILITY EASEMENTS - UG-15

DRAWING 1 Sheet 2 of 3

REAR LOT EASEMENT WHERE FACILITIES EXIST

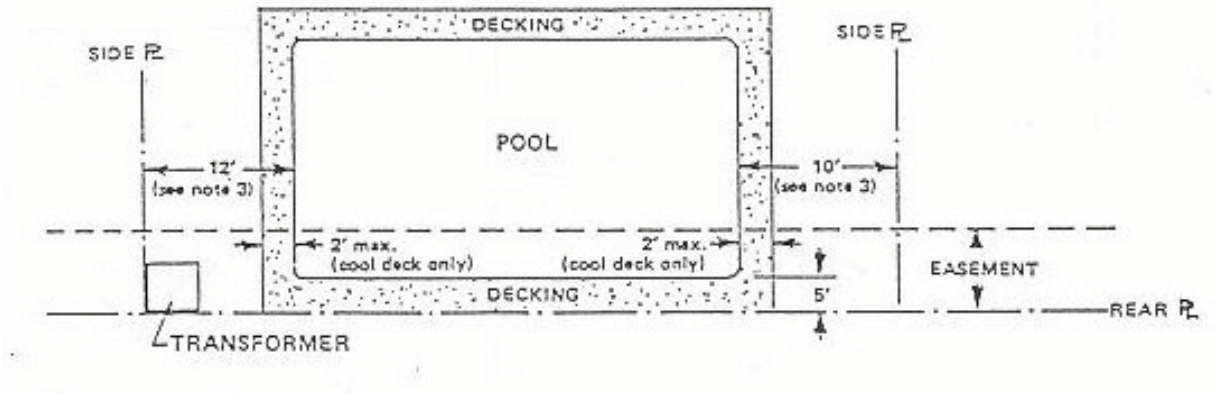


1. Cool decking only may encroach to within 2' of the staked location of PEU underground facilities. The pool lining, water lines, electrical wiring, filter equipment and other appurtenances are specifically prohibited.

2. The relocation of PEU underground facilities is not necessary; however, written permission for encroachment is required.

DRAWING 2

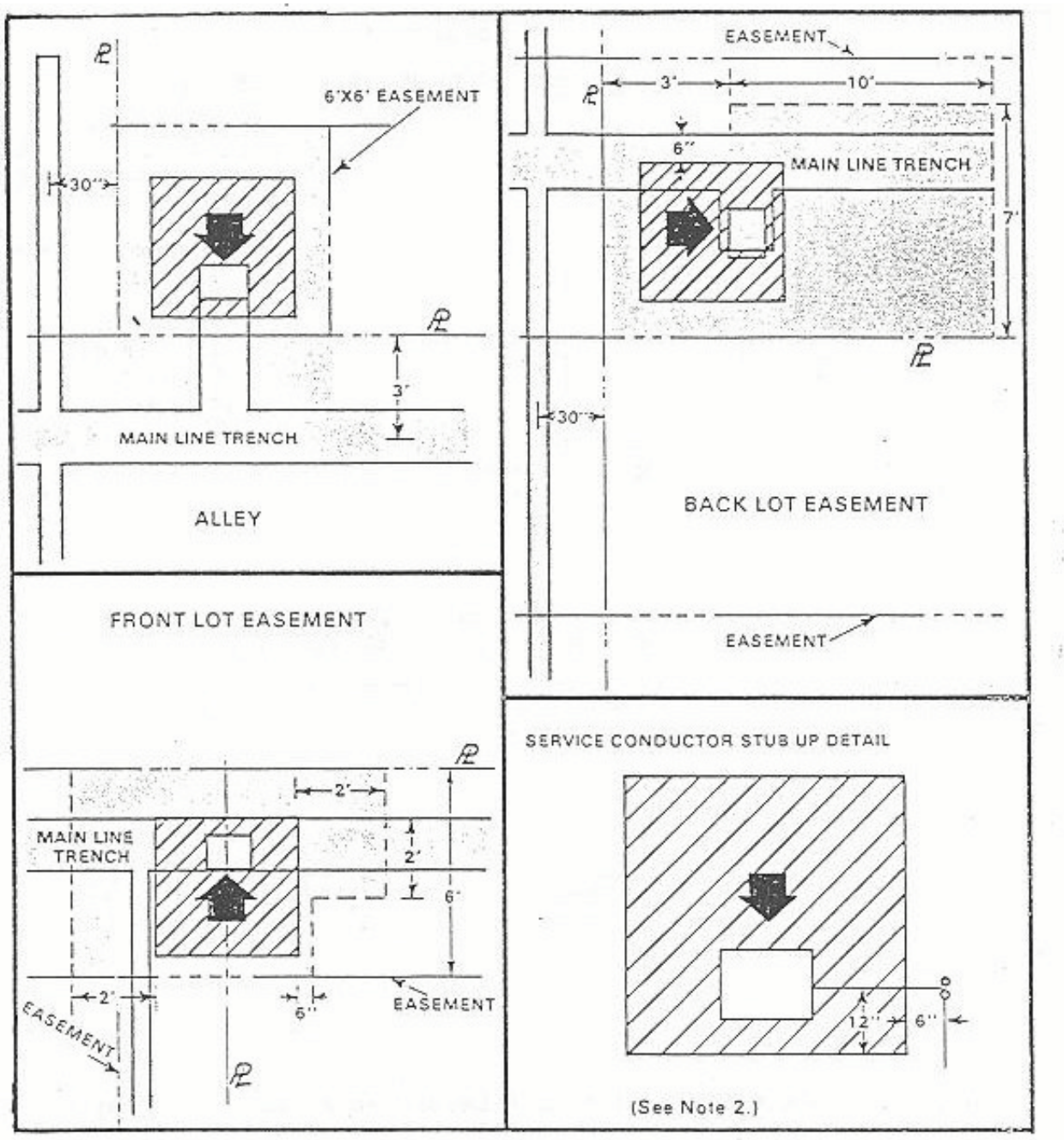
REAR LOT EASEMENT – RELOCATION AT THE CUSTOMER'S EXPENSE
MAXIMUM ENCROACHMENT PERMITTED



The following conditions must be met before an encroachment may be granted:

1. PEU facilities must be relocated prior to the installation of the pool.
2. Pool excavation can be no closer than 5' from the rear property line.
3. Pool, excavation and equipment must have 10' clearance from side property lines and 12' when transformer is located on the lot (this applies only inside the rear easement).
4. The water lines, electrical wiring, filter equipment and other appurtenances ar specifically prohibited within the easement.
5. Written approval granting encroachment will be issued only after the cost of relocation is paid by the customer and the facilities have been relocated.
6. Written approval granting encroachment may be issued if there are no existing facilities or plans for future facilities within the easement.

C A B L E T V I N S T A L L A T I O N S - UG-16



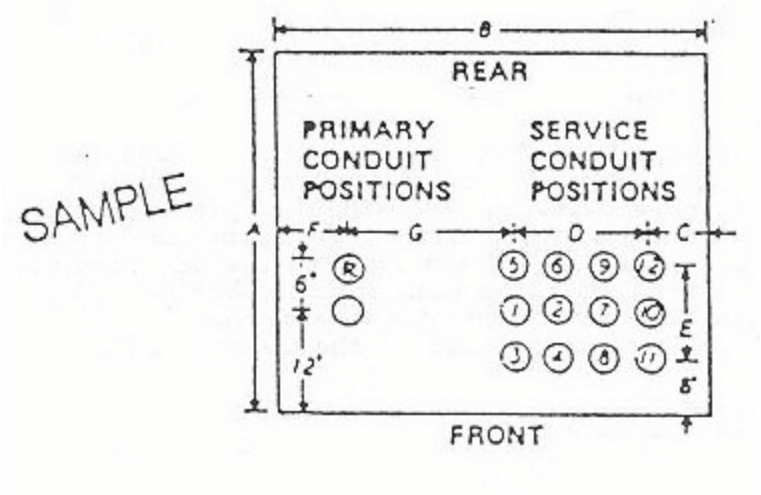
1. Customer equipment shall not be installed in shaded areas designated in details above.
2. Customer shall provide and install service conductors from his service disconnect to within 6" of PEU pad mounted transformer, leaving a 4' length stubbed up for connection by PEU.
3. PEU will connect customer-provided service conductor inside the transformer.
4. Point of delivery will be the landing lugs of the transformer.
5. Service disconnect must be padlocked.
6. indicates the opening side of the transformer.

POURED-IN-PLACE OR PRECAST PAD
FOR 3-PHASE TRANSFORMER 0-1000 KVA - UG-17

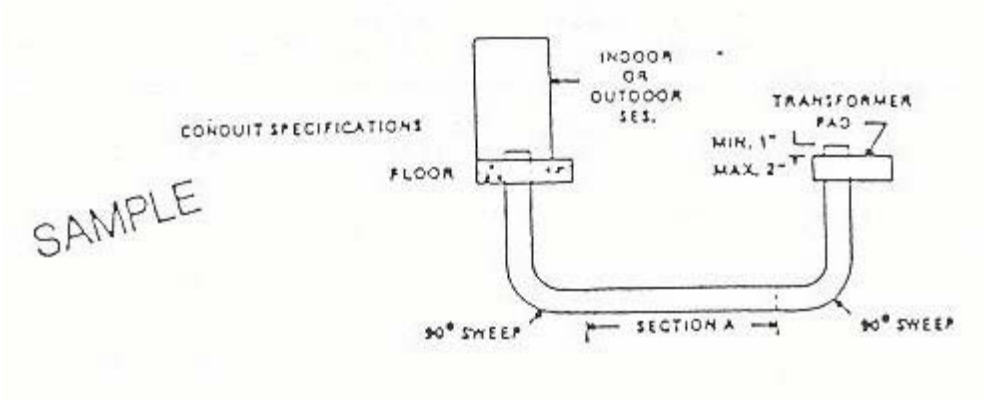
Service Section Size	Minimum Number & Size of Conduits Primary	Service	Service Voltage	Dimensions in Inches A	B	C	D	E	F	G
400	4-2" + 1-4"	1-4"	120/208	60	70	13	12	8	24	21
			277/480	60	70	13	12	8	24	21
600	4-2" + 1-4"	2-4"	120/208	60	70	13	12	8	24	21
			277/480	60	70	13	12	8	24	21
800	4-2" + 1-4"	2-4"	120/208	60	70	13	12	8	24	21
			277/480	60	70	13	12	8	24	21
1000	4-2" + 1-4"	2-4"	120/208	60	70	13	12	11	24	21
			277/480	69	86	18	12	11	33	23
1200	4-2" + 1-4"	3-4"	120/208	69	86	18	12	11	33	23
			277/480	69	86	18	12	11	33	23
1600	4-2" + 1-4"	4-4"	120/208	69	86	18	12	11	33	23
			277/480	69	86	18	12	11	33	23
2000	4-2" + 1-4"	5-4"	120/208	69	86	18	12	11	33	23
			277/480	90	108	28	12	11	37	32
2500	4-2" + 1-4"	7-4"	120/208	69	86	18	12	11	33	23
			277/480	90	108	28	17	11	37	26
3000	4-2" + 1-4"	8-4"	120/208	69	86	18	17	11	33	18
			277/480	90	108	28	17	11	37	26

NOTES:

1. For multiple services out of one transformer, contact PEU for correct pad specifications.
2. R-Provision for Ground Rod.
   Install sleeve through Pad, 1" minimum I.D. with no obstruction beneath.
3. Reinforcing steel required.



POURED-IN-PLACE OR PRECAST PAD FOR 3-PHASE TRANSFORMER 0-1000 KVA - UG-17



1. Any service that will be under any floor, concrete drive, apron, sidewalks adjacent to building, or any other permanent obstruction must be in rigid metallic or non-metallic electric conduit rated 90°C. Permanent obstructions shall include, but are not limited to planters, covered parking, pedestrian and vehicular entrance and exit ways, decorative walls, etc. Blacktop is not considered a permanent obstruction.
2. All sweeps and conduits installed for direct burial services must extend a minimum of 24" beyond the edge of concrete or permanent obstructions.
3. When necessary to backfill trench prior to PEU installing direct buried service conductors, rigid metallic or non-metallic electric conduit rated 90°C may be installed from transformer to service entrance section.
4. If section "A" (above) is over 50 lineal feet or conduit run has more than 180° of bends, steel sweeps and bends must be used. Conduit run in total shall not contain more than 270° of bends. This includes 90° sweeps into section and transformer.
5. All sweeps, bends and conduits are to be 4" IPS sweeps and bends shall have a minimum radius of 36" for 4" conduit.
6. All steel sweeps, bends and conduits shall be factory coated or half-wrapped to a 40 mil thickness with plastic tape suitable for direct burial over Polykin #927 primer.
7. Primary conduits to be installed with a minimum cover of 40" service conduits to be installed with a minimum cover of 24". Dimensions given are from final grade to top of conduit.
8. All sweeps into transformer pad shall extend a minimum of 1" and a maximum of 2" above top of pad.
9. A 3/16" monofilament polypropylene pull line is required in conduit runs greater than 50 lineal feet and in runs containing more than two 90° sweeps.
10. Number of service conduits to be installed, per adjoining chart and pad details according to service section size, are to be installed within area shown as "Service Conduit Position," starting with the position marked #1. (Example: If 4 conduits are required, place them in positions marked 1, 2, 3 and 4). Conduits shall be placed with a minimum of space between.
11. Arrows, shown on pad detail indicate the direction sweeps and conduits are to be positioned.
12. In all cases, the customer is responsible for the usability of the conduit system at the time PEU installs conductors.

POURED-IN-PLACE OR PRECAST PAD FOR 3-PHASE TRANSFORMER 0-1000 KVA - UG-17

General Specifications

1. Pad to be minimum of 6" thick - 2500 PSI concrete. Pad to be made in one continuous pour of concrete over 4" minimum of compacted ABC. Reinforcing steel may be required in some areas, see Note #3, page 87.
2. The following unobstructed areas are required around and above the transformer pad for air circulation and operating purposes: 2' minimum at the sides, 18" minimum at the rear of pad, 10' minimum at the front of the pad and 20' minimum vertical clearance directly above the pad and the unobstructed areas.
3. All transformer locations to comply with al codes, ordinances and regulations within the State of Arizona or otherwise specified by PEU.
4. Customer to provide all work involved with pad and conduits. (Not just a portion).
5. All conduits must be inspected an approved prior to backfilling around them.
6. All concrete forms and conduits must be in place and approved prior to pouring pad.
7. Any variations from the above requirements must be given in writing and signed by PEU inspector.
8. Minimum of 24 hours notice required for inspections.

For inspection contact:_____ Phone:

A) After conduits installed, before pad poured:

Inspected by:_____ Date: Remarks:

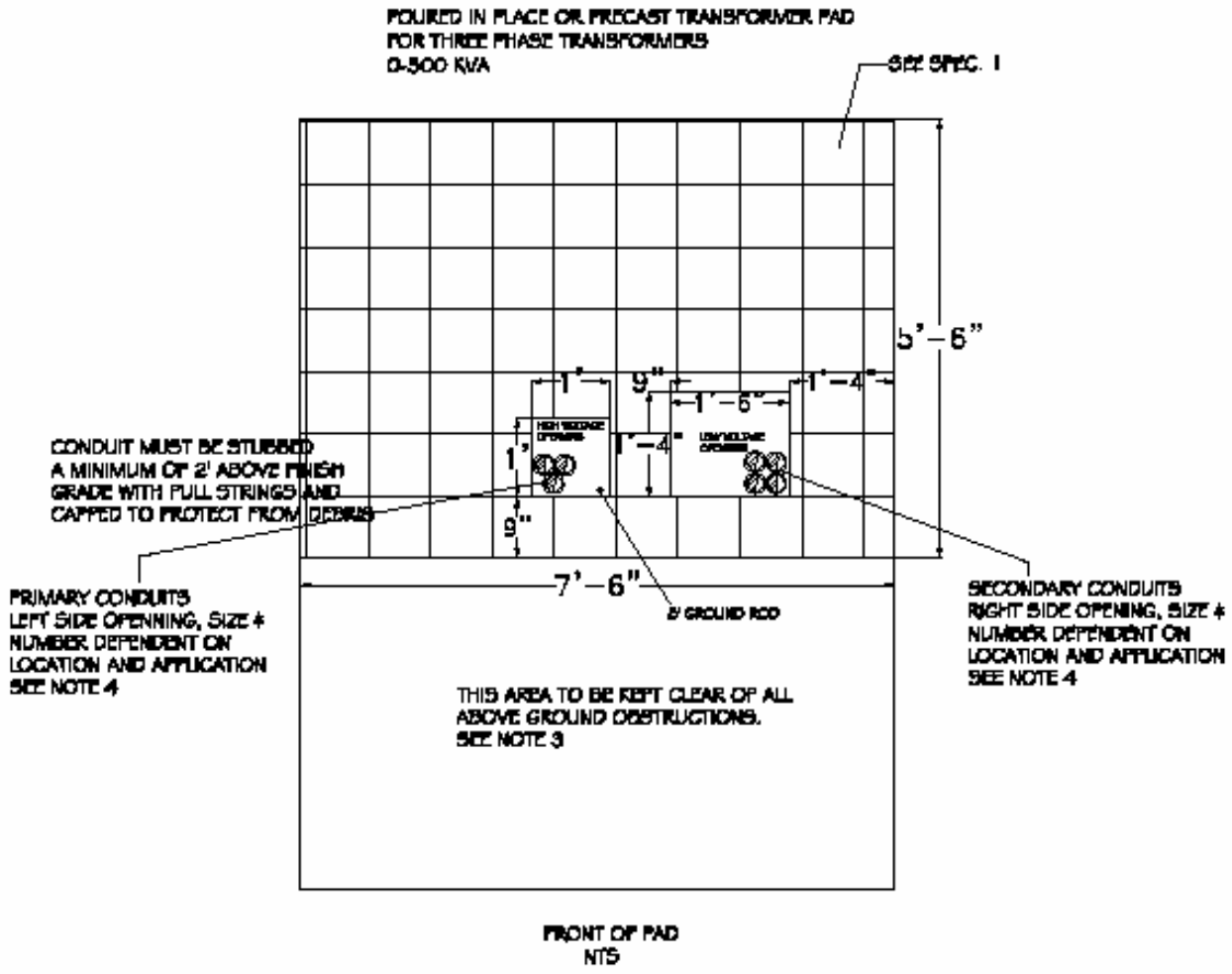
B) Final inspection by:_____ Date: Remarks:

Job Name:_____ Job#

Address:_____ Date:

City:_____ By:

POURED-IN-PLACE OR PRECAST PAD FOR 3-PHASE TRANSFORMER 0-500 KVA - UG-18



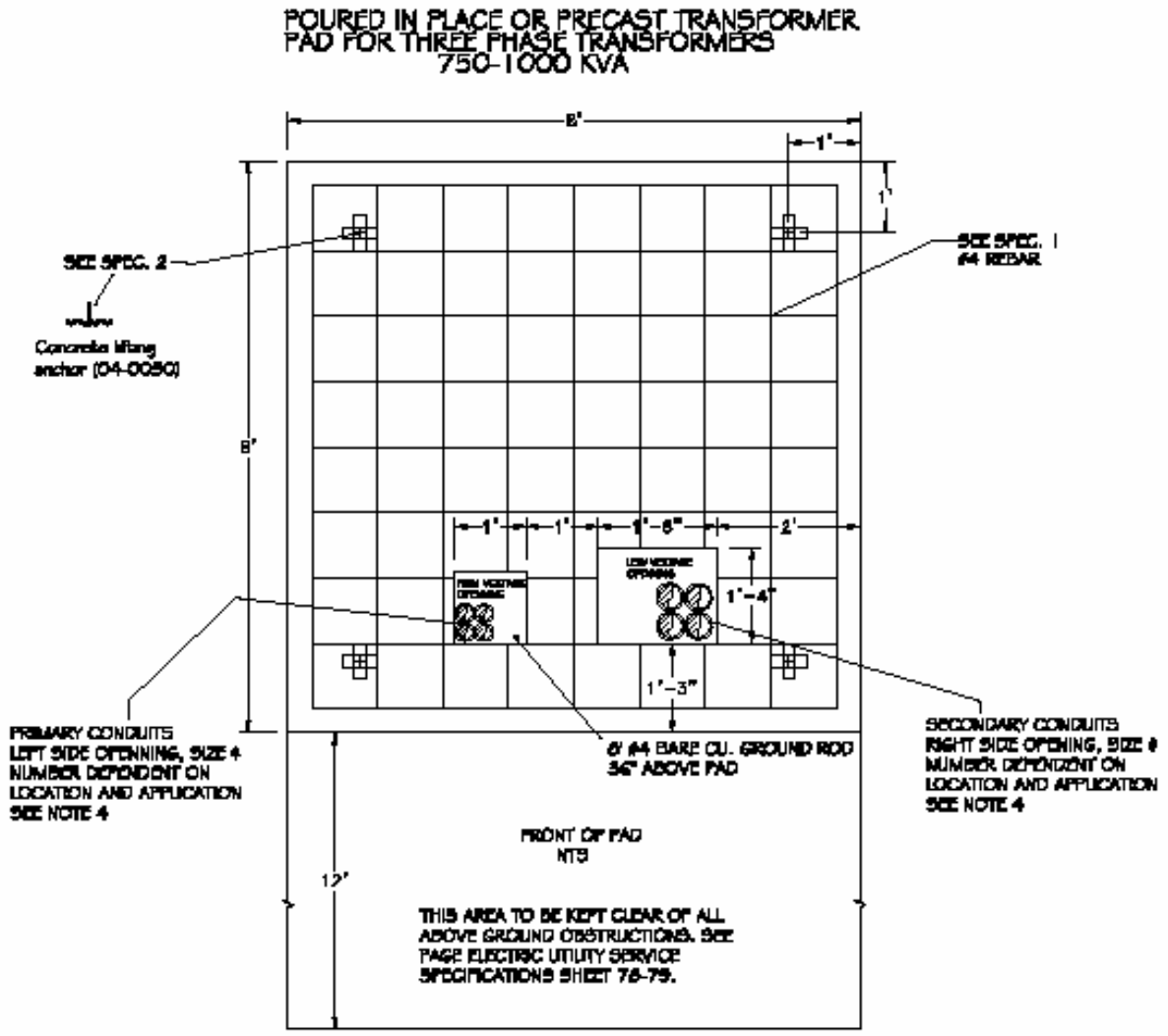
PAD SPECIFICATIONS:

1. Concrete: 2500 PSI at 28 days, 3/4" aggregate, 5" slump and 6" thick. If pad is precast, reinforce with #4 rebar on 10" x 12" centers. If pad is poured-in-place, reinforce with 4" x 4" #6 reinforcing mat or rebar as above.

INSTALLATION NOTES:

1. The subbase shall be compacted to 80% maximum density and shall be inspected by the Page Electric Utility Inspector. Base ABC fill shall also be used as back fill under the pad and shall be compacted to 80% maximum density and shall be inspected by the Page Electric Utility before pouring the pad.
2. Top of pad shall be 4" minimum above surrounding finish grade and at sufficient elevation to prevent flooding.
3. Pad shall be located to be readily accessible and oriented to provide a minimum of 12' feet clear working space at the front of the unit. Maintain a minimum clearance of 18" at sides and back of pad.
4. When pad is poured-in-place, stub conduit 2" above the pad. DO NOT ENCASE conduit in concrete. Steel conduit shall have protective bushings. Install temporary protective covers to keep debris out of all conduits. See Plans for size and number of conduits.

POURED-IN-PLACE OR PRECAST PAD FOR 3-PHASE TRANSFORMER 750 - 1000 KVA - UG-19



PAD SPECIFICATIONS:

1. Concrete: 2500 PSI at 28 days, 3/4" aggregate, 5" slump and 8" thick. Reinforced with #4 rebar 12" on center each way.
2. If the pad is precast it shall be equipped with four (4) concrete anchors, Stock No. 04-0050, for lifting.

INSTALLATION NOTES:

1. The subbase shall be compacted to 80% maximum density and shall be inspected by the Page Electric Utility Inspector. Base ABC fill shall also be used as back fill under the pad and shall be compacted to 80% maximum density. Rebar placement shall be inspected by the Page Electric Utility before pouring the pad.
2. Top of pad shall be 4" minimum above surrounding finish grade and at sufficient elevation to prevent flooding.
3. Pad shall be located to be readily accessible and oriented to provide a minimum of 12' feet clear working space at the front of the unit. Maintain a minimum clearance of 18" at sides and back of pad.
4. When pad is poured-in-place, stub conduit 2" above the pad. DO NOT ENCASE conduit in concrete. Steel conduit shall have protective bushings. Install temporary protective covers to keep debris out of all conduits. See P.E.U. plans for size and number of conduits.