



Electric Service Requirements

Customer Owned Service Poles

Engineering Specification T005

October 2018

Powering forward.
Together.



 SMUD®	ENGINEERING SPECIFICATION	No. T005	
		Page 1 of 8	
		REV. 1	DATE: 10/18
CATEGORY			
ELECTRIC SERVICE REQUIREMENT			
SUBJECT			
CUSTOMER OWNED SERVICE POLES			

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1 PURPOSE

The following material is intended to inform customers and their contractors of the minimum requirements of the Sacramento Municipal Utility District (SMUD) for customer owned service poles. SMUD cannot establish service to poles which do not meet these minimum requirements.

2 SCOPE

This specification identifies the necessary actions, design and construction requirements for a customer to receive service from SMUD. It also outlines SMUD communications requirements and the "Service Request" process. This specification applies to services provided to customer owned service poles, except where such service is to an agricultural pump (See Electric Service Requirement T006, for Agricultural Pumps.)

3 REFERENCES – Latest Editions, Errata, Corrections, and Amendments

- 3.1 General Order 95 (G.O. 95)
- 3.2 California Electric Code
- 3.3 National Electric Code
- 3.4 National Electrical Safety Code
- 3.5 Electric Utility Service Equipment Requirements

4 DEFINITIONS

4.1 ABBREVIATIONS

The following abbreviations may be used throughout these Service Requirements:

A	=	A Type Meter	L.P.	=	Lightning Protector
Amp. or A	=	Amperes	Man.	=	Manual
Ag. Can.	=	Agricultural Meter Can	M.B.	=	Meter Mounting Base
C.C.	=	Circuit closing	M.D.	=	Maximum Demand
Cl.	=	Class of Meter	O.H.	=	Overhead
Comb. Can	=	Combination Can	R.M.T.	=	Rigid Metallic Conduit
CT	=	Current Transformer	S.	=	S Type Meter
D.B.	=	Direct Buried	S.P.	=	Separate Potential
E.B.	=	Encased Burial	S.S.	=	Safety Socket
E.L.	=	Element			
EUSERC	=	Electric Utility Service Equipment Requirements Committee			
U.L.	=	Underwriters Lab	U.G.	=	Underground Committee
W.	=	Watts	G.O.	=	General Order
H.P.	=	Horsepower			
I.M.T.	=	Intermediate Metallic Conduit			
KW.	=	Kilowatts			

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4.2 TERMINOLOGY

- 4.2.1 **Service Entrance:** Facilities installed by the customer between the termination of SMUD's service drop conductors or underground service point and the main disconnect. Some of these facilities must be designed to accommodate SMUD equipment (meters, test switches, etc.)
- 4.2.2 **Service Entrance Conductor:** Conductors installed by the customer and extending from the service panel, through conduit, and exiting the service weatherhead or terminating at the underground service point.
- 4.2.3 **Overhead Service Pole:** A pole installed and owned by the customer with an overhead service drop attached by SMUD.
- 4.2.4 **Underground Service Pole:** A pole installed and owned by customer with an underground service run installed to a SMUD service point.

5 GENERAL REQUIREMENTS AND INFORMATION

- 5.1 These service requirements are consistent with General Order 95, "Rules for Overhead Electric Line Construction", of the Public Utilities Commission, and all applicable orders, rules and regulations of the state of California, which have been established in the interest of safety to the public and to utility workers. SMUD cannot establish service to customer facilities that do not meet these minimum requirements.
- 5.2 In addition to SMUD's requirements, the customer is responsible for complying with applicable provisions of City and County ordinances, the "California Electric Code" and all applicable orders, rules and regulations of the State of California. All materials used and all work performed on a customer's premise, with the exception of the meter and service, must conform with local inspection authority requirements. SMUD cannot connect service until the proper inspection authority approves the customer's facilities. All Meter panel and customer service switchboard equipment shall meet SMUD and EUSERC requirements and be UL approved.
- 5.3 Only authorized SMUD employees are permitted to make connections between SMUD equipment and customer service entrance facilities (service entrance conductors, panel terminations, etc....).
- 5.4 The customer shall carefully review all materials supplied herein: text, drawings and drawing notes. Any questions should be directed to the responsible SMUD Engineering Designer.
- 5.5 Failure to comply with the above procedures could be costly and cause unnecessary delays for the customer.
- 5.6 "Where the operation of the customer's equipment will require unusually stable voltage regulation free from momentary and transient voltage excursions, or other stringent voltage control beyond that supplied by SMUD in the normal operation of its system, the customer, at his/her own expense, shall be responsible for installing, owning, operating and maintaining any special or auxiliary equipment on the load side of the meter that will be required, as deemed necessary by the customer, for the operation of the customer's equipment."
- 5.7 These requirements are not applicable to agricultural pump installations.

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**USE CAUTION WHEN DIGGING TO AVOID BURIED ELECTRICAL CABLES
BEFORE DIGGING CALL U.S.A. (Underground Service Alert)
800-227-2600 OR 811**

6 SERVICE REQUEST AND DESIGN

- 6.1 Satisfactory arrangements must be made for the installation of electric service lines and the location and setting of meters. Customers must notify SMUD of any planned or intended changes in the load, character or nature of the service required to supply the premises, structure, building, or other facility. For new, replacement, rewire or upgrade of electric service go to www.smud.org/projectapplication or contact SMUD's Customer Services Department, 6301 S Street, 1-888-742-7683 (SMUD).
- 6.2 Notification to SMUD must be accomplished as soon as initial planning is considered. Delays in supplying the required information could cause an unnecessary inconvenience or delay for the customer.
- 6.3 A SMUD Engineering Designer will be assigned to work with the customer. Electric service will not be connected until all SMUD requirements have been met, including any special requirements determined by SMUD's Engineering Designer, payment of any service charges, and approval of service entrance facilities by the proper inspection authority.
- 6.4 For technical questions regarding new service or rewire, remodel and/or a revision to existing service, contact SMUD Line Design Department at (916) 732-5700.

7 DESIGN REQUIREMENTS

7.1 SERVICE DESIGN

- 7.1.1 SMUD's Engineering Designer will determine the specific location and type of service to the customer, and the allowed service voltage. Where a suitable building or structure exists, the service will normally be installed in accordance with Residential or Commercial Industrial Electric Service Requirements. Where there are no such structures, SMUD's Engineering Designer will designate the location for a service pole.
- 7.1.2 Service pole(s) shall be located within 100 feet of a SMUD power pole as determined by SMUD's Engineering Designer, shall be a minimum of 3 feet from all property lines, and a minimum of 10 feet from any overhead line. Pole locations, other than as described above, will not be allowed without advance written permission from SMUD's Engineering Designer. Deviations will be made only under special circumstances and are subject to additional charges, payable prior to meter installation.

7.2 POLES

Poles shall be installed and completely wired by the customer or their contractor.

7.2.1 Permanent Overhead Service Poles

7.2.1.1 Overhead service poles shall comply with Appendix A-2.

7.2.1.2 Permanent overhead service poles shall be full-length pressure treated, or treated by

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another process which will provide equivalent penetration and retention of preservative. Brush application of wood preservative is not acceptable.

- 7.2.1.3 Poles shall be of circular cross-section with a minimum top circumference of 16 inches and a minimum length of 25 feet (5 feet in the ground).

7.2.2 Temporary Overhead Service Poles

- 7.2.2.1 Overhead service poles serving temporary installations shall comply with Appendix A-1 or A-2.
- 7.2.2.2 Temporary overhead service poles may be either square or circular in cross-section and shall be solid (not laminated).
- 7.2.2.3 Square poles shall have a minimum cross-section of 6 x 6 inches and a minimum length of 20 feet (set 4 feet in the ground). They shall be of redwood or another type of wood that is sound and free from large knots or other imperfections.
- 7.2.2.4 All poles, other than redwood, shall be butt-treated with an acceptable wood preservative to a point at least 12 inches above the ground line. Redwood poles do not require treatment.
- 7.2.2.5 It is recommended that temporary service poles shall be full-length treated with a suitable preservative in order to obtain the maximum useful life of the pole and to provide increased safety for the public and workers.
- 7.2.2.6 A permanent service pole is approved for temporary installations. It will usually be the most economical pole for repeated use.

7.2.3 Permanent and Temporary Underground Service Poles

- 7.2.3.1 Underground service poles shall comply with Appendix A-5 and/or A-6.

7.3 GUYING OR BRACING

Poles shall be guyed or braced against the pull of the service conductors. Any exceptions must be approved by a SMUD Engineering Designer. Guying shall be as follows:

- 7.3.1 Permanent Service Poles: Anchor guys only as shown on Appendix A-4, Figs.1 & 2.
- 7.3.2 Temporary Service Poles: Wood braces or anchor guys as shown on Appendix A-4, Figs. 1, 2 and 3.

7.4 CLEARANCES

The customer shall contact their assigned SMUD Engineering Designer for support pertaining to the following, or any other, clearance requirements:

7.4.1 Vertical Clearance for Service Drops

Service drops shall have a minimum ground clearance as follows:

- 7.4.1.1 Over the center portion of a street - 18 feet minimum (See Appendix A-4.). For the minimum height over trolley's, railroad tracks, telephone lines, etc., consult SMUD.
- 7.4.1.2 At curb or outer limits of possible vehicular traffic - 16 feet minimum (See Appendix A-4).

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7.4.1.3 Over private driveways or other areas accessible to vehicles.

- Commercial/Industrial Premises - 16 feet minimum.
- Residential Premises - 12 feet minimum.

7.4.1.4 Over areas accessible to pedestrians only.

- Commercial/Industrial Premises - 12 feet minimum.
- Residential Premises - 10 feet minimum.

7.4.1.5 If the above clearances cannot be obtained with a standard length service pole, the required clearances shall be obtained by using a longer pole with installation and setting depth in accordance with Appendix A-4.

7.4.2 Horizontal Clearance for Service Drops

7.4.2.1 A customer's pole shall not be placed closer than 10 feet from SMUD's, nor within 10 feet of the vertical plane of a SMUD overhead line.

7.4.2.2 A customer's pole must be so located that the pole itself does not fall within, nor the service drop cross over, any area within a 10-foot radius from the edge of a well or structure that would require use of a boom.

7.4.3 Swimming Pool Clearances for Service Drops (Includes Hot Tubs)

7.4.3.1 The installation and maintenance of service drops over swimming pools shall be avoided where practical.

7.4.3.2 The customer must contact SMUD's Engineering Designer to determine SMUD's service requirements before installing a new pool or rewiring an existing installation where a SMUD service drop is over or will cross within 10 feet of a pool.

7.4.3.3 The clearances shown on Appendix A-7 are required in SMUD's Service Area.

7.5 SERVICE ENTRANCE CONDUCTORS

7.5.1 The local inspection authorities should be consulted for size and type of wire.

7.5.2 The service entrance conductors must be continuous and without splices.

7.5.3 A minimum 24 inches of conductor must remain outside of the service head for connection to the service drop.

7.5.4 Weatherproof wire is not permitted in the conduit.

7.6 SERVICE ENTRANCE CONDUIT

7.6.1 Service panels shall be in compliance with the appropriate residential or commercial Electric Service Requirement.

7.6.2 The service conduit shall be sized in accordance with the requirements of local inspection authorities.

7.6.3 All fittings shall be rain tight.

7.6.4 Water pipe or water pipe fittings are not permitted.

7.6.5 Metallic service conduit shall be covered in accordance with the illustrations in Appendix A-1 through A-3.

7.6.6 Service entrance conduits for underground runs shall comply with the appropriate residential or commercial Electric Service Requirements.

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7.7 SERVICE MAIN DISCONNECT

- 7.7.1 The service main disconnect enclosure shall be rain-tight and approved by the local inspection authorities.
- 7.7.2 If the enclosure contains exposed live parts, the disconnect cover must be locked.
- 7.7.3 Unless threaded connections are employed, adequate bonding of all sections of the service equipment shall be provided.

7.8 GROUNDING

- 7.8.1 The customer shall be responsible for bonding and grounding all exposed non-current-carrying metal parts. Grounding shall be in accordance with California Electric Code and local ordinances.
- 7.8.2 The ground conductor shall be protected against mechanical injury by metallic conduit to the ground electrode by means of an approved conduit grounding hub and clamp. The connection to the ground electrode must be above ground or otherwise readily accessible for inspection.
- 7.8.3 A metallic service head used with a PVC Schedule 80 service riser must be grounded to the customer's equipment ground.

7.9 INSTALLATION OF METERS

The meter(s) will not be installed until:

- 7.9.1 The customer has complied with all the requirements listed above.
- 7.9.2 The work has been passed by the proper inspection authorities and SMUD has been so notified by them.

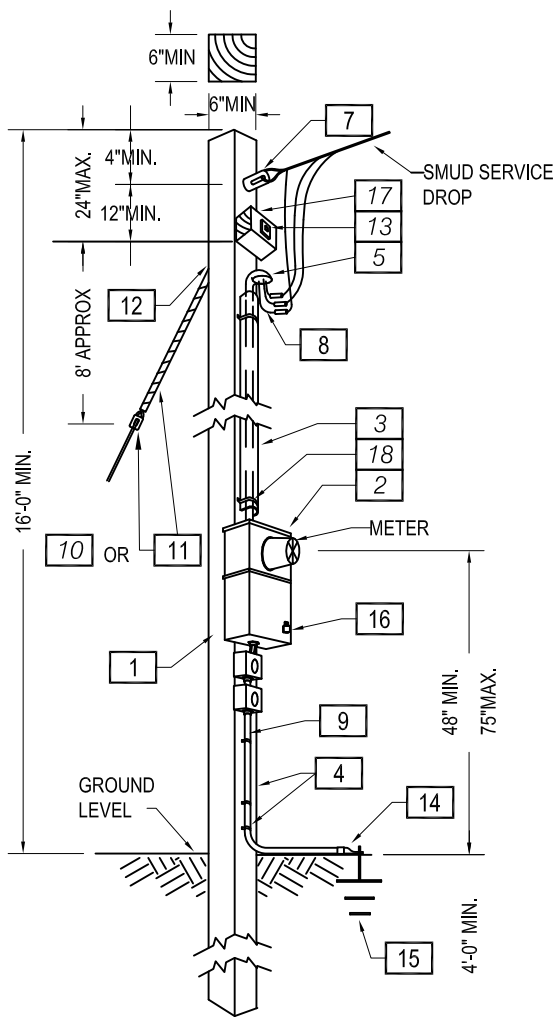
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APPENDIX A

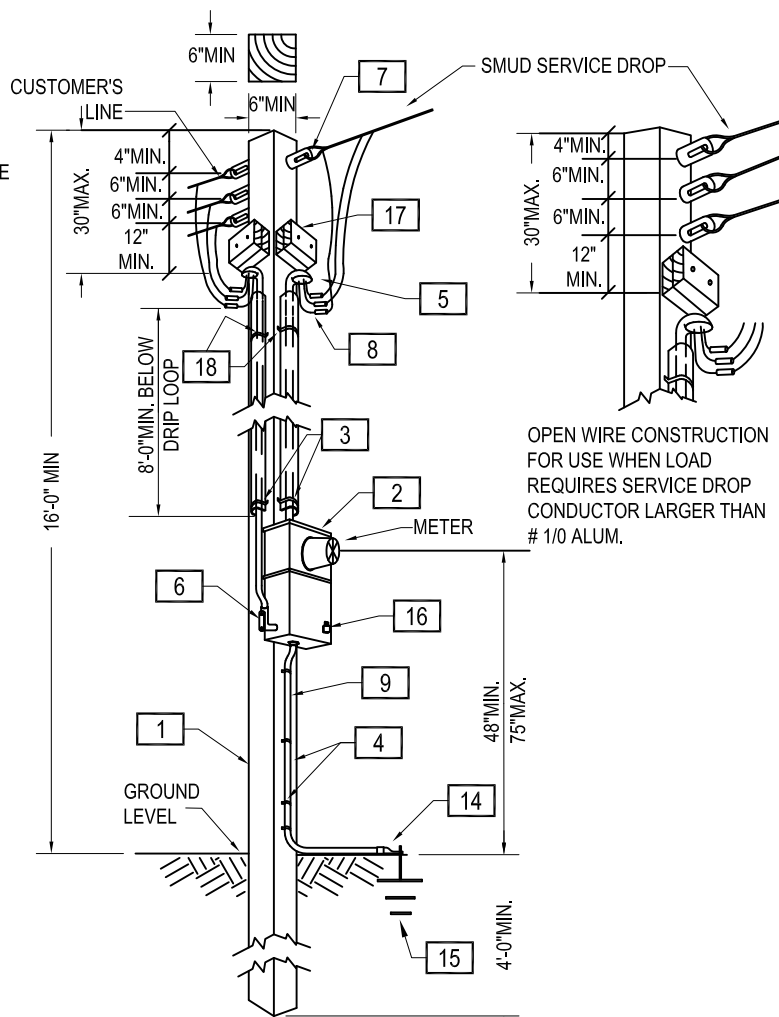
Design and Construction Drawings

The customer and/or their representatives or contractors shall adhere to the design and construction drawings listed in the table below, unless otherwise specified in writing by a SMUD inspector or designer. The Customer shall review all drawings. Any questions or comments shall be brought to the Sacramento Municipal Utility District's (SMUD's) attention for clarification or resolution.

Drawing Title	Page Number
TYPICAL CUSTOMER OWNED OVERHEAD SERVICE POLE (TEMPORARY INSTALLATIONS)	A-1
TYPICAL CUSTOMER OWNED OVERHEAD SERVICE POLE (PERMANENT INSTALLATIONS)	A-2
COVERING CONDUITS ON POLES/ METER CONNECTIONS	A-3
CLEARANCES FOR SERVICE POLES / MINIMUM GROUND CLEARANCES FOR SUPPLY SERVICE DROPS, 0-300 VOLTS	A-4
TYPICAL CUSTOMER OWNED UNDERGROUND SERVICE POLE (TEMPORARY INSTALLATIONS)	A-5
TYPICAL CUSTOMER OWNED UNDERGROUND SERVICE ENTRANCE (PERMANENT INSTALLATIONS)	A-6
SERVICE CLEARANCE OVER A SWIMMING POOL	A-7



SERVICE DROP CABLE TO RECEPTACLES



SERVICE DROP CABLE TO OVERHEAD LINE

MATERIALS TO BE FURNISHED AND INSTALLED BY THE CUSTOMER

ITEM DESCRIPTION

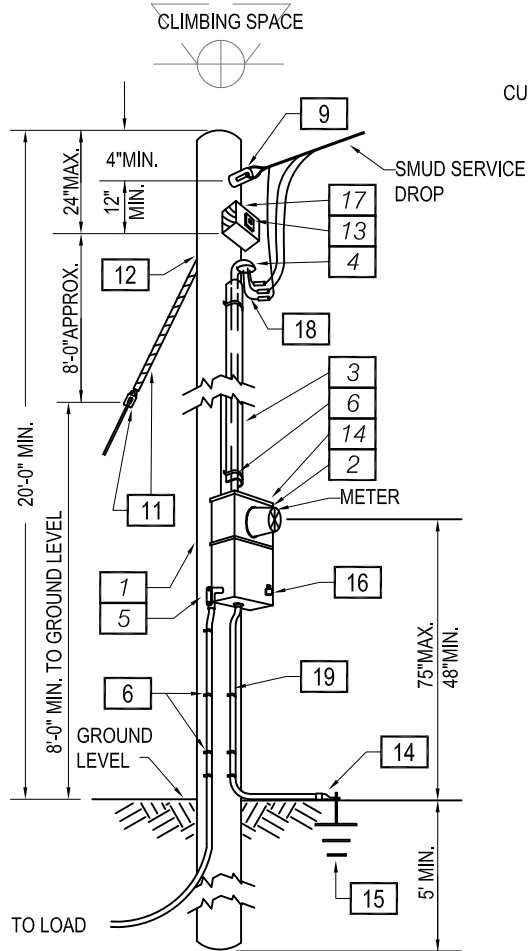
1. POLE, 6"X 6"X 20'0" (MIN. LENGTH)
2. METER SOCKET, SERVICE MAIN DISCONNECT. (SIZE AS REQUIRED)
3. CONDUIT, RIGID STEEL, GALV., EMT OR PVC SCH 80
4. CONDUIT, RIGID STEEL, GALV WITH PIPE STRAP.
5. SERVICE HEAD(S)
6. CONDUIT FITTING, THREADED WITH COVER AND GASKET
7. INSULATORS, CLEVIS TYPE (WITH BOLTS, WASHERS)
8. WIRE, INSULATED, SIZE AS REQ'D (24" MIN. EXTENSION FROM SERVICE HEAD)
9. WIRE, GROUND, BARE

NOTES:

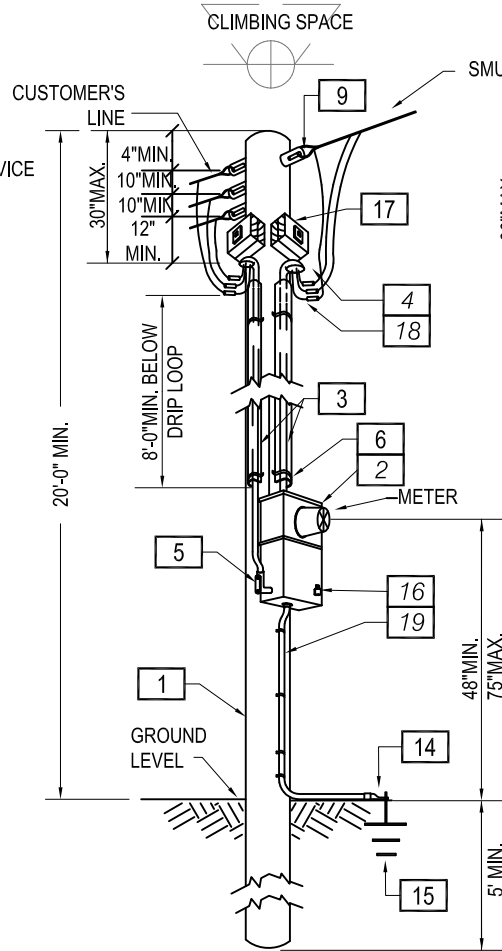
1. A BOLTED POINT OF ATTACHMENT FOR SMUD SERVICE DROPS MUST BE FURNISHED AND INSTALLED BY THE CUSTOMER.
2. IF PVC SCH 80 AND PLASTIC SERVICE HEAD IS USED, ELIMINATE ITEM 17. IF SERVICE CONDUIT, ITEM 3, IS METAL, PROTECTIVE COVERING IS REQUIRED. SEE PAGE A-3.
3. A LEVEL STANDING SPACE SHALL BE MAINTAINED IN FRONT OF THE METER SOCKET.
 - 120/240 SERVICE - 36" L X 30" W
 - 277/480 SERVICE - 42" L X 30" W

ITEM DESCRIPTION

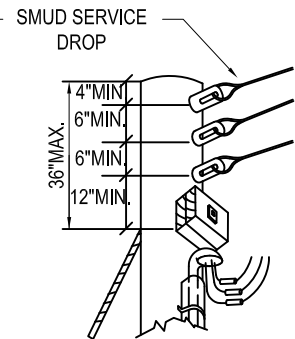
10. GUY CABLE, 1/4" MIN. GALV. STEEL OR EQUIVALENT WITH GUY STRAIN INSULATOR (10,000 LBS. MIN.) ANCHOR, AND FITTINGS. (SEE PAGE A-4)
11. PUSH BRACE, 2"X 4" MIN. TIMBER (SECURELY BOLTED OR NAILED TO POLE-SEE PAGE A-4)
12. EYE BOLT, 5/8"X12" GALV.(FOR GUY ATTACHMENT)
13. WASHER, 2-1/4" SQ. FOR 5/8" BOLT SIZE, GALV.
14. CONDUIT GROUNDING HUB AND CLAMP
15. GROUND, CONTACT APPLICABLE CITY OR COUNTY INSPECTION AUTHORITY.
16. PADLOCK FOR SERVICE MAIN DISCONNECT (IF DESIRED)
17. WOOD BLOCK 4"X 4"X 6" OR TWO 2"X 4"X 6" NAILED TOGETHER.
18. PIPE STRAP



SERVICE DROP CABLE TO UNDERGROUND LINE



SERVICE DROP CABLE TO OVERHEAD LINE



PREFERRED OPEN
WIRE CONSTRUCTION
SEE NOTE #1

MATERIALS TO BE FURNISHED AND INSTALLED BY THE CUSTOMER

ITEM DESCRIPTION

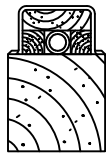
1. POLE, WOOD ROUND (25 FT. MIN. LENGTH)
2. METER SOCKET, SERVICE MAIN DISCONNECT (SIZE AS REQUIRED)
3. CONDUIT, RIGID STEEL, GALV., EMT OR PVC SCH 80
4. SERVICE HEAD(S)
5. CONDUIT FITTING, THREADED WITH COVER AND GASKET
6. STRAP, PIPE, GALV.
7. CROSSARM (WHERE USED) 3 3/4" X 4 3/4" X 5'-4"
8. BRACE, FLAT STEEL, 32" (WITH BOLTS, LAG SCREW, WASHERS), GALV.
9. INSULATORS, CLEVIS TYPE (WITH BOLTS, WASHERS)
10. BOLT, MACH. 5/8" X LENGTH AS REQ'D (WITH WASHERS), GALV.

ITEM DESCRIPTION

11. GUY CABLE 1/4" MIN. GALV. STEEL OR EQUIVALENT WITH GUY STRAIN INSULATOR (10,000 LBS. MIN.) ANCHOR AND FITTINGS.
12. EYE BOLT, 5/8" X LENGTH AS REQ'D, GALV. (FOR GUY ATTACHMENT)
13. WASHER, 2 1/4" SQ. FOR 5/8" BOLT SIZE, GALV.
14. CONDUIT GROUNDING HUB AND CLAMP
15. GROUND, CONTACT APPLICABLE CITY OR COUNTY INSPECTION AUTHORITY.
16. PADLOCK FOR SERVICE MAIN DISCONNECT (IF DESIRED)
17. WOOD BLOCK 4"X 4"X 6" OR TWO 2"X 4"X 6" NAILED TOGETHER AS REQUIRED.
18. WIRE, INSULATED: SIZE AS REQUIRED (24" MIN. EXTENSION FROM SERVICE HEAD)
19. WIRE, GROUND, BARE

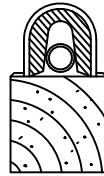
NOTES:

1. FRAME POLE FOR OPEN WIRE CONSTRUCTION WHEN THE LOAD REQUIRES SERVICE DROP CONDUCTORS LARGER THAN 1/0 ALUMINUM OR WHEN THE LOAD REQUIRES THREE PHASE SERVICE.
2. A BOLTED POINT OF ATTACHMENT FOR SMUD SERVICE DROPS MUST BE FURNISHED AND INSTALLED BY THE CUSTOMER.
3. IF PVC SCH 80 AND PLASTIC SERVICE HEAD IS USED, ELIMINATE ITEM 17. IF SERVICE CONDUIT, ITEM 3, IS METAL, PROTECTIVE COVERING IS REQUIRED. SEE PAGE A-3.
4. A LEVEL STANDING SPACE SHALL BE MAINTAINED IN FRONT OF THE METER SOCKET.
 - 120/240 SERVICE - 36"L X 30"W
 - 277/480 SERVICE - 42"L X 30"W



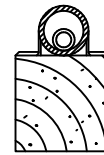
WOOD BOXING

BOXING OF WOOD 1 1/2" MIN. THICKNESS. THE COVER SHALL BE NAILED TO THE SIDE PIECES. BOXING STRAPPED TO POLE WITH GALVANIZED PERFORATED PLUMBER'S TAPE SPACED NOT OVER 3'-0" APART.



REDWOOD MOULDING

REDWOOD MOULDING 1 1/2" THICK STRAPPED TO POLE WITH GALVANIZED PERFORATED PLUMBER'S TAPE SPACED NOT OVER 3'-0" APART.



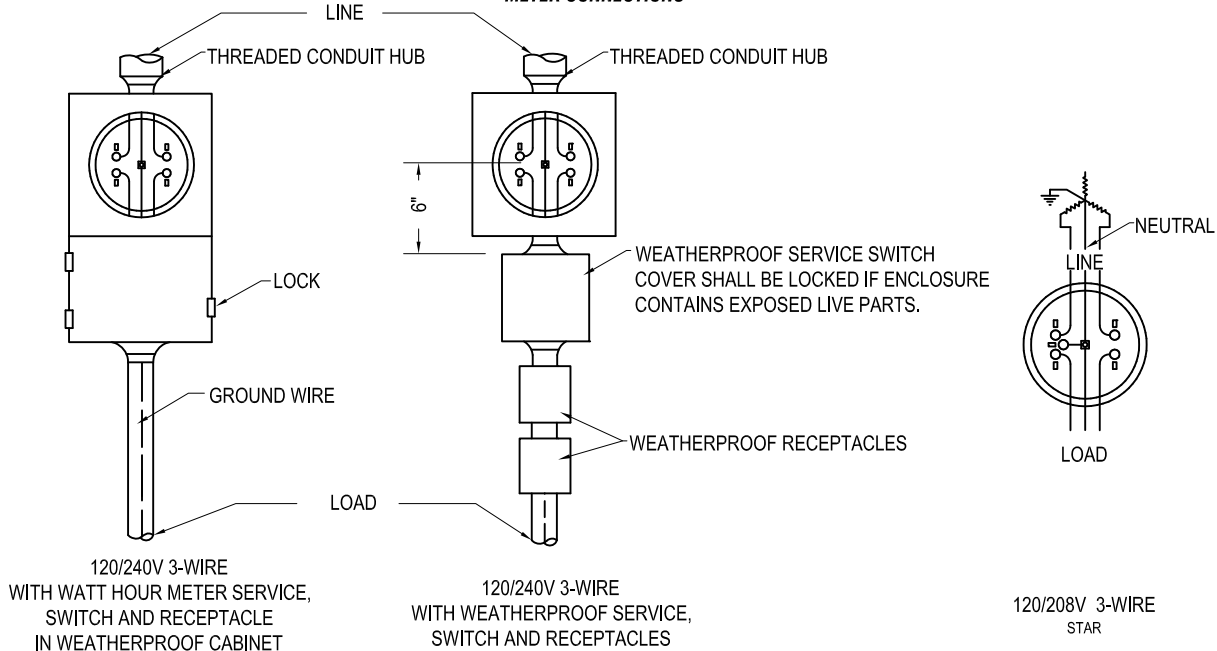
FIBER CONDUIT OR
EXTRA HEAVY WALL PVC

EXTRA HEAVY WALL PVC (SCHEDULE 80) OR FIBER CONDUIT OF 1/4" WALL THICKNESS OVER RIGID CONDUIT STRAPPED TO POLE WITH GALVANIZED PERFORATED PLUMBER'S TAPE SPACED NOT OVER 3'-0" APART.

NOTES:

1. PVC SCHEDULE 80 RISER AND SERVICE HEAD DO NOT REQUIRE COVERING.

METER CONNECTIONS

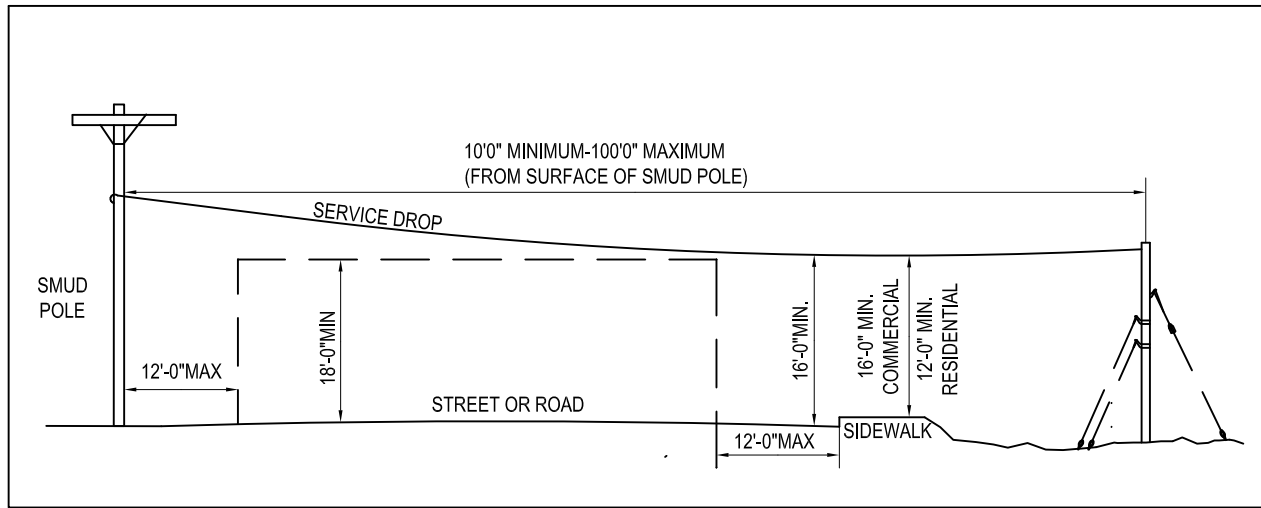


NOTES:

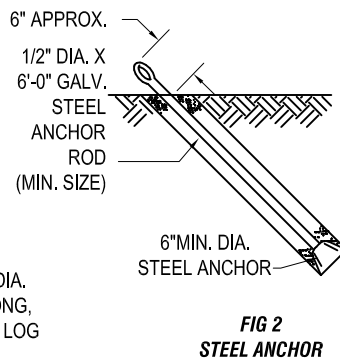
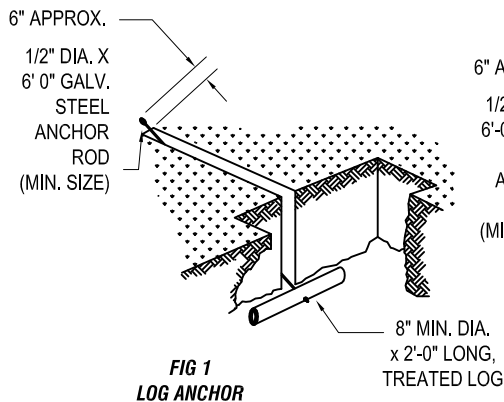
1. ALL WIRING AND MATERIAL ON THE LOAD SIDE OF THE METER SOCKET MUST BE IN ACCORDANCE WITH CITY AND COUNTY ORDINANCES, AS WELL AS ALL APPLICABLE ORDERS, RULES AND REGULATIONS ISSUED BY THE STATE OF CALIFORNIA.
2. UNLESS THREADED CONNECTORS ARE USED, ADEQUATE BONDING OF ALL SECTIONS OF THE SERVICE EQUIPMENT MUST BE PROVIDED.
3. TEST BYPASS DEVICES ARE NOT REQUIRED ON MOST METER SOCKETS FOR TEMPORARY INSTALLATIONS, HOWEVER, TEST BLOCKS ARE ALWAYS REQUIRED ON 3Ø 120/208V & 277/480V INSTALLATIONS/ CONSULT SMUD'S LINE DESIGN DEPARTMENT FOR DETAILS.
4. TEST BYPASS DEVICES ARE REQUIRED ON PERMANENT POLES FOR COMMERCIAL SERVICE.

METER SOCKET REQUIREMENTS

CLASS OF SERVICE	TYPE OF SERVICE	NO. OF JAWS	TEST BYPASS REQUIRED
RESIDENTIAL	120/240 1Ø 3W	4	NO
RESIDENTIAL	120/208 1Ø 3W-Y	5	NO
COMMERCIAL	120/240 1Ø 3W	4	YES SEE NOTE #3
COMMERCIAL	120/208 1Ø 3W-Y	5	YES SEE NOTE #3
COMM. INDUS.	3Ø 4W Y OR Δ	7	YES SEE NOTE #3



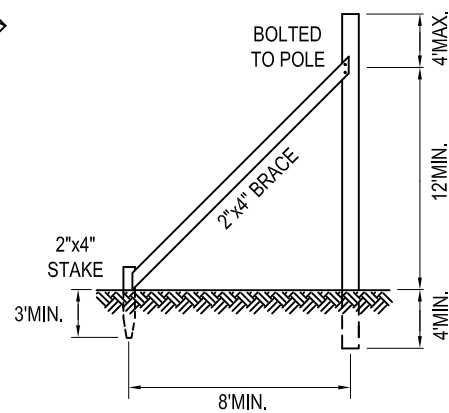
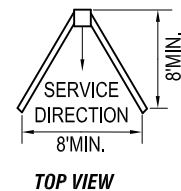
DETAILS OF ANCHORS AND BRACING



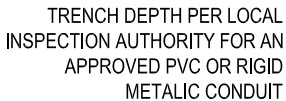
NOTE:

1. THE MINIMUM ANCHOR DEPTH IN THE SOIL IS 4 FEET.

TABLE OF POLE SETTING DEPTH MIN	
POLE LENGTH (FT.)	DEPTH (FT.) IN FIRM SOIL
25	5
30	5
35	5.5
40	6

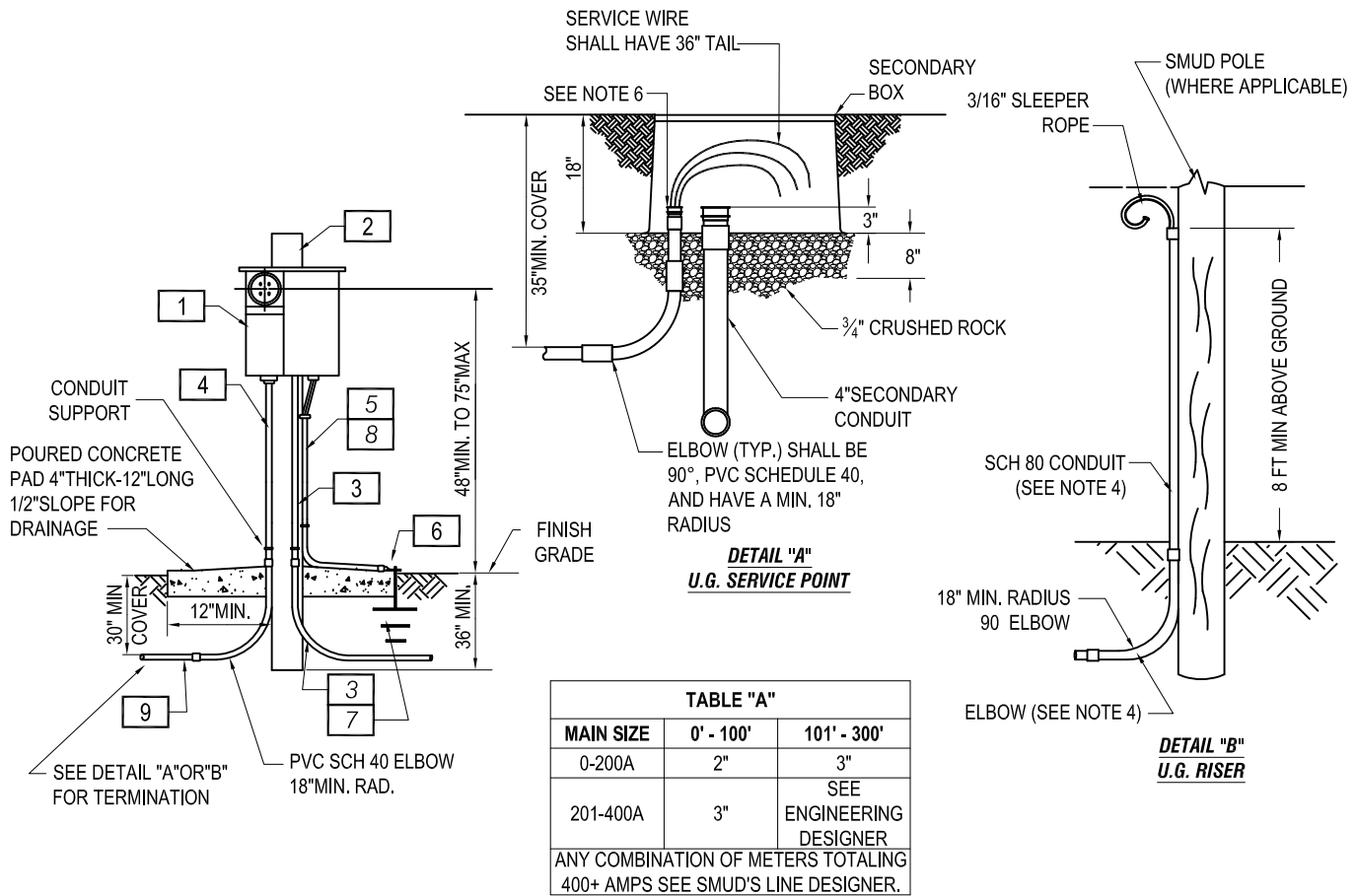


(FOR USE WITH TEMPORARY POLE ONLY)



NOTES:

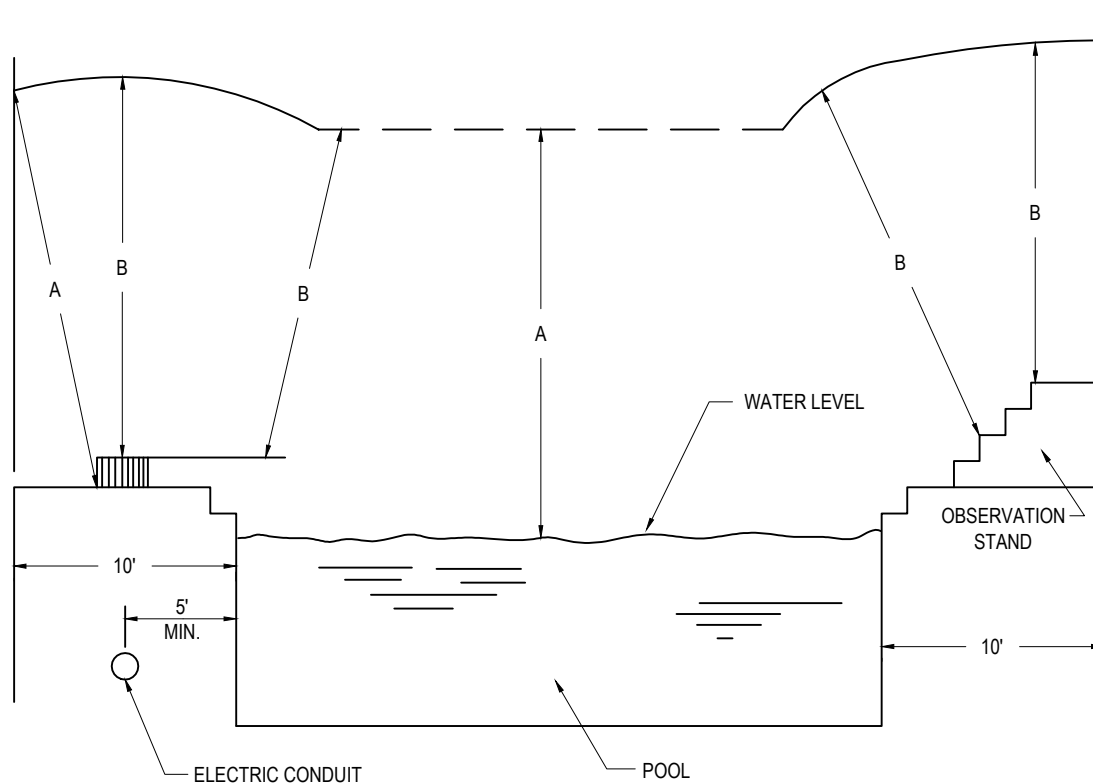
1. THE CUSTOMER WILL FURNISH AND INSTALL UNDERGROUND TEMPORARY SERVICE FACILITIES.
2. TEMPORARY SERVICE POLES SHALL BE SOLID (NOT LAMINATED) SQUARE POLES. THEY SHALL HAVE A MINIMUM CROSS- SECTION OF 4X4 INCHES AND A MINIMUM LENGTH OF 11 FEET (SET 4' IN THE GROUND) AND SHALL BE OF REDWOOD OR ANOTHER TYPE OF WOOD THAT IS SOUND AND FREE FROM LARGE KNOTS OR OTHER IMPERFECTIONS.
3. ALL POLES, OTHER THAN REDWOOD, SHALL BE BUTT-TREATED WITH PRESERVATIVE TO A POINT AT LEAST 12" ABOVE THE GROUND LINE. IT IS RECOMMENDED THAT TEMPORARY SERVICE POLES ALSO BE FULL-LENGTH TREATED WITH A SUITABLE PRESERVATIVE IN ORDER TO OBTAIN MAXIMUM USEFUL LIFE OF THE POLE AND TO PROVIDE INCREASED SAFETY TO THE PUBLIC AND TO THE WORKERS.
4. A LEVEL STANDING SPACE SHALL BE MAINTAINED IN FRONT OF THE METER SOCKET.
 - 120/240 SERVICE - 36"L X 30"W
 - 277/480 SERVICE 42"L X 30"W



MATERIALS TO BE FURNISHED AND INSTALLED BY THE CUSTOMER	
ITEM	DESCRIPTION
1	SERVICE TERMINATION ENCLOSURE, COMBINATION METER SOCKET PANEL-CONSULT LOCAL INSPECTION AUTHORITY FOR PANEL REQUIREMENTS.
2	POST, 4" X 6" X 10'-0" LONG OR 6" DIA. X 10'-0" LONG, FULLY TREATED.
3	CONDUIT (LOAD SIDE) SIZE & MATERIAL AS REQUIRED BY BUILDING CODE.
4	CONDUIT, SERVICE RISER - SCH 80 PVC --- SEE TABLE "A" FOR SIZE.
5	CONDUIT, RIGID STEEL GALVANIZED, EMT OR PVC 80.
6	HUB AND CLAMP, GROUNDING
7	GROUND-TYPE & MATERIAL PER LOCAL INSPECTION AUTHORITIES & CODE.
8	GROUND WIRE, COPPER-SIZE IN ACCORDANCE WITH APPLICABLE ELECT. CODES & LOCAL REQ.
9	CONDUIT, PVC TYPE DB120 OR EQUIVALENT --- SEE TABLE "A" FOR SIZE.

NOTES:

1. THE CUSTOMER SHALL FURNISH AND INSTALL ALL MATERIAL IN ANY SERVICE INSTALLATION, EXCEPT THE SERVICE CABLE AND THE METER.
2. THE CUSTOMER SERVICE ENTRANCE INSTALLATION MUST INCLUDE A SEPARATE LANDING COMPARTMENT WHICH WILL PROVIDE THE APPROPRIATE LANDING LUGS, BARRIERS, AND SEALABLE COVER.
3. THE CUSTOMER SERVICE CONDUIT WILL TERMINATE AT SMUD'S SERVICE POINT WHEN IT IS SERVED FROM AN UNDERGROUND SERVICE POINT.
4. THE CUSTOMER SERVICE CONDUIT MUST INCLUDE A SCH. 40 PVC, 90° ELBOW AND 10' OF SCH. 80 PVC RISER CONDUIT WHEN SERVED FROM A POLE. ALL CONDUIT EXPOSED ABOVE FINISHED GRADE MUST BE SCH 80 PVC.
5. ALL MANUFACTURED METER PEDESTALS OR ANY CUSTOMER SUPPLIED SERVICE ENTRANCE EQUIPMENT THAT DEVIATES FROM THE ABOVE EXAMPLES MUST BE APPROVED BY SMUD'S LINE DESIGN AND METER DIVISIONS AND THE LOCAL INSPECTION AUTHORITIES. IT IS RECOMMENDED THAT SERVICE ENTRANCE PANELS BE MOUNTED ON A PERMANENT STRUCTURE WHEREVER POSSIBLE.
6. CONDUIT COVER WILL VARY WITH CONDUIT SIZE. CONDUIT CLEARANCE IN SERVICE BOX IS 3" FROM FLOOR.
7. A LEVEL STANDING SPACE SHALL BE MAINTAINED IN FRONT OF THE METER SOCKET.
 - 120/240 SERVICE - 36"L X 30"W
 - 277/480 SERVICE - 42"L X 30"W



CLEARANCES

	INSULATED SUPPLY OR SERVICE DROP CABLES, 0-750 VOLTS TO GROUND, SUPPORTED ON AND CABLED TOGETHER WITH AN EFFECTIVELY GROUNDED BARE MESSENGER	ALL OTHER CONDUCTORS	
		VOLTAGE TO GROUND	
		0-15 KV	15-50 KV
A. CLEARANCE IN ANY DIRECTION TO THE WATER LEVEL, EDGE OF WATER SURFACE, BASE OF DIVING PLATFORM OR PERMANENTLY-ANCHORED RAFT.	22.5 FEET	25 FEET	27 FEET (2)
B. CLEARANCE IN ANY DIRECTION TO THE OBSERVATION STAND, DIVING PLATFORM OR TOWER.	14.5 FEET (2)	17 FEET (1)	18 FEET

1. REVISED TO CONFORM TO NATIONAL ELECTRIC CODE - 2017.
2. REVISED TO CONFORM TO CPUC GENERAL ORDER 95 - 2000.