

# **Master Metered MHP Transfers**

## **SDG&E Electric Standards**

# SDG&E Standards

- SDG&E Standards were developed to meet the minimum legal requirements and to expand on those requirements when needed to enhance the safety of its workforce and the public
- Meets GO 95 & GO 128
- Meets OSHA & DOT
- SDG&E Standards provide for Workspace

# Underground Standard 3370.5 Trench Installations

- Minimum Separation From Main Trench
- Horizontal Separation
- Vertical Separation
- Minimum Separation From Service Trench

# J) MINIMUM SEPARATION MAIN TRENCH

## UTILITY

TELCO MULTIPLE CONCRETE DUCT (CONDEX), TRANSITE, WATER, SEWER, FUEL, OIL, DIESEL, PROPANE GAS, SPRINKLER, DRAIN, LEACH LINES, STEEL GAS MAIN LARGER THAN 2", PRIVATELY OWNED UTILITIES I.E. PRIVATE TELCO, VIDEO, AUDIO, SECURITY WIRES, FIRE ALARM, STREET LIGHTING, ETC..

WATER, SEWER, EXISTING GAS OR ELECTRIC, STORM DRAINS, STEAM, IRRIGATION PIPE, SPRINKLER PIPE LARGER THAN 4", PRIVATE TELCO TRANSITE, PROPANE GAS

SEWAGE LEACH LINES OR SEEPAGE PITS

IRRIGATION, SPRINKLER PIPE 4" AND LESS

FUEL OIL, GASOLINE, DIESEL

IN CONSIDERATION FOR THE SAFETY OF THE GENERAL PUBLIC, PERSONS ENGAGED IN CONSTRUCTION, PROPERTY, AND FOR THE OPERATION AND MAINTENANCE OF SDG&E SYSTEM, PROPANE GAS LINES ARE NOT PERMITTED IN A JOINT TRENCH WITH SDG&E FACILITIES.

- \* IF FIELD CONDITIONS WILL NOT PERMIT ANY OF THESE SEPARATIONS, THEN APPROVAL OF REDUCED SEPARATIONS MUST COME FROM BOTH THE CUSTOMER PROJECT PLANNER AND SDG&E INSPECTOR. ON FIELD CONDITIONS THAT WILL NOT PERMIT STANDARD PARALLEL SEPARATIONS, A 12 INCH MINIMUM SEPARATION IS REQUIRED. PROPANE GAS SHALL ALWAYS HAVE A 5 FOOT SEPARATION.

## HORIZONTAL SEPARATION

NOT PERMITTED IN JOINT TRENCH WITH GAS AND/OR ELECTRIC

\* 5 FEET WITH 3 FEET OF UNDISTURBED SOIL

5 FEET FROM MAIN TRENCH FOR EACH 1' DEPTH OF MAIN TRENCH

\* 3 FEET PROVIDED DEPTH OF PIPE DOES NOT EXCEED DEPTH OF GAS OR ELECTRIC

FROM GAS-15 FEET, FROM ELECT.-5 FEET WITH 3 FEET OF UNDISTURBED SOIL

## UTILITY

ALL WET UTILITIES, TELCO, TV, GAS, ELECT.

FUEL OIL, GASOLINE, DIESEL

ARC-WELDABLE PIPELINES 3" AND LARGER

STEAM  
(SEE NOTE)

## VERTICAL (CROSSING) SEPARATION MIN.

6 INCHES

FROM GAS, 12 INCHES  
FROM ELECT. 6 INCHES

18 INCHES

FROM GAS, POLY PIPE 5 FEET  
FROM ELECT., 5 FEET

NOTE: PLACE INSULATING BARRIER BETWEEN STEAM MAIN AND POLYETHYLENE PIPE AND/OR ELECTRIC.

# MINIMUM SEPARATION SERVICE TRENCH

IN A SERVICE TRENCH, WATER, SEWER, PROPANE GAS, SPRINKLER, DRAIN, LEACH LINES, PRIVATELY OWNED UTILITIES I.E., PRIVATE TELCO, VIDEO, AUDIO, SECURITY WIRES, FIRE ALARM, STREET LIGHTING, ETC., ARE NOT PERMITTED IN THE SAME TRENCH WITH GAS OR ELECTRIC. WHEN THESE FACILITIES PARALLEL GAS OR ELECTRIC, 12 INCHES SEPARATION BETWEEN SEPARATE TRENCHES SHALL BE MAINTAINED BETWEEN THE UTILITIES WITH AT LEAST 12 INCHES OF UNDISTURBED NATIVE SOIL BETWEEN TRENCHES. PROPANE GAS SHALL ALWAYS HAVE A 5 FOOT SEPARATION. WHEN CROSSING, A 6 INCH VERTICAL SEPARATION IS REQUIRED.

(EXCEPTION) WHEN THERE IS NO SDG&E GAS IN THE SERVICE TRENCH, A SINGLE NATURAL GAS LINE MAY BE INSTALLED IN THE TRENCH, PROVIDED A 12 INCH RADIAL SEPARATION IS MAINTAINED. (THIS IS FOR AN INDIVIDUAL HOUSE ON A CASE BY CASE BASIS, NOT A GROUP OF HOUSES/BUILDINGS).

FUEL OIL, GASOLINE, AND DIESEL LINES MUST MAINTAIN A 15 FOOT SEPARATION FROM GAS PIPELINES AND A FIVE FOOT SEPARATION WITH THREE FEET OF UNDISTURBED SOIL SEPARATION FROM ELECTRIC CONDUITS.

IF FIELD CONDITIONS WILL NOT PERMIT THESE SEPARATIONS, THEN APPROVAL OF REDUCED SEPARATIONS MUST COME FROM BOTH THE CUSTOMER PROJECT PLANNER AND SDG&E INSPECTOR.

WHEN FIELD CONDITIONS WILL NOT PERMIT STANDARD PARALLEL SEPARATIONS, A 12 INCH MINIMUM SEPARATION IS REQUIRED. PROPANE GAS SHALL ALWAYS HAVE A 5 FOOT SEPARATION.

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SERVICE GUIDE	Indicates Latest Revision	Completely Revised	New Page	Information Removed	C&E STD. 7403.5
3370.5					
SDG&E ELECTRIC STANDARDS					REVISION
UNDERGROUND DISTRIBUTION (UD) TRENCHES AND UTILITY POSITIONING - S.D. COUNTY					DATE 1-1-96 APPROVED [Signature]

# **Underground Standard 3370.2**

## **Trench Separations**

- Main Trench & Service Trench Public Property (Minimum Separation)
- Service Trench Private Property (Minimum Separation)
- Vertical and Horizontal Separations
- Orange County has its Own Standards

THE FOLLOWING CHARTS SHOW THE MINIMUM COVER FOR EACH UTILITY, THE MINIMUM SEPARATION BETWEEN SPACE ALLOTMENTS AND THE MAXIMUM SIZE FOR EACH SPACE ALLOTMENT. TO READ THE CHARTS, READ ACROSS AND DOWN UNTIL THE TWO JOIN IN A SQUARE, AND THAT IS THE DISTANCE REQUIRED BETWEEN THE TWO UTILITIES.

EXAMPLE

	VERTICAL	HORIZONTAL
	ES	GS
	↓	↓
ES ELECTRIC SERVICE	12"	12"

UNDER VERTICAL, "ES" & "ES" JOIN AT (C) WHICH REFERS TO INSTALLATION NOTE (C).

UNDER HORIZONTAL, "ES" & "GS" JOIN AT 12 INCHES WHICH WOULD BE THE DISTANCE REQUIRED FROM THE OUTER EDGE OF THE ELECTRIC SERVICE (SPACE ALLOTMENT) TO THE OUTER EDGE OF GAS SERVICE (SPACE ALLOTMENT).

### MAIN TRENCH, [SERVICE TRENCH PUBLIC PROPERTY] (MINIMUM SEPARATION FROM)

		VERTICAL								HORIZONTAL								* MIN. COVER	FACILITY SPACE ALLOTMENT (MAX)
		GM GS	P	S	ES	SL	ME	L	U	GM GS	P	S	ES	SL	ME	L	U		
GM	GAS MAIN	(DKNP)	—	12"	12"	12"	12"	12"	(H)	—	—	—	—	—	—	—	(H)	30" MIN	4'-1/2" x 4'-1/2"
GS	GAS SERVICE	(GUV)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	—	30"	5'-1/2" x 5'-1/2"
P	PRIMARY ELECTRIC	(PW)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	12"	30"	5'-1/2" x 5'-1/2"
S	SECONDARY ELECTRIC	(PW)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	12"	30"	5'-1/2" x 5'-1/2"
ES	ELECTRIC SERVICE	(PW)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	12"	30"	5'-1/2" x 5'-1/2"
SL	SDG&E STREET LIGHT	(PW)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	12"	30"	2'-1/2" x 2'-1/2"
ME	MULTIPLE ELECTRIC	(HWTSP)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	—	—	30"	18" x 14" (+ DUCTS)
L	FOREIGN UTILITY STREET LIGHT	(UFM)	12"	—	—	—	—	12"	12"	—	12"	12"	12"	12"	—	1" or less	12"	24"	2'-1/2" x 2'-1/2"
U	FOREIGN UTILITY (TELCO, CATV)	(FHIJ)	(H)	12"	12"	12"	12"	12"	12"	(H)	—	12"	12"	12"	—	12"	—	24"	9" x 24"
T	SDG&E TELECOMMUNICATIONS	(CY)	12"	(C)	(C)	(C)	(C)	(C)	12"	—	(C)	(C)	(C)	(C)	(C)	12"	12"	30"	4'-1/2" x 4'-1/2"

\* ALL MINIMUM COVER DEPTHS MEASURED FROM FINAL GRADE. REDUCED DEPTHS IN NOTE (B) ARE LESSER DEPTHS THAN WHAT IS SHOWN UNDER "MINIMUM COVER".

— NOT ALLOWED.

### SERVICE TRENCH PRIVATE PROPERTY (MINIMUM SEPARATION FROM)

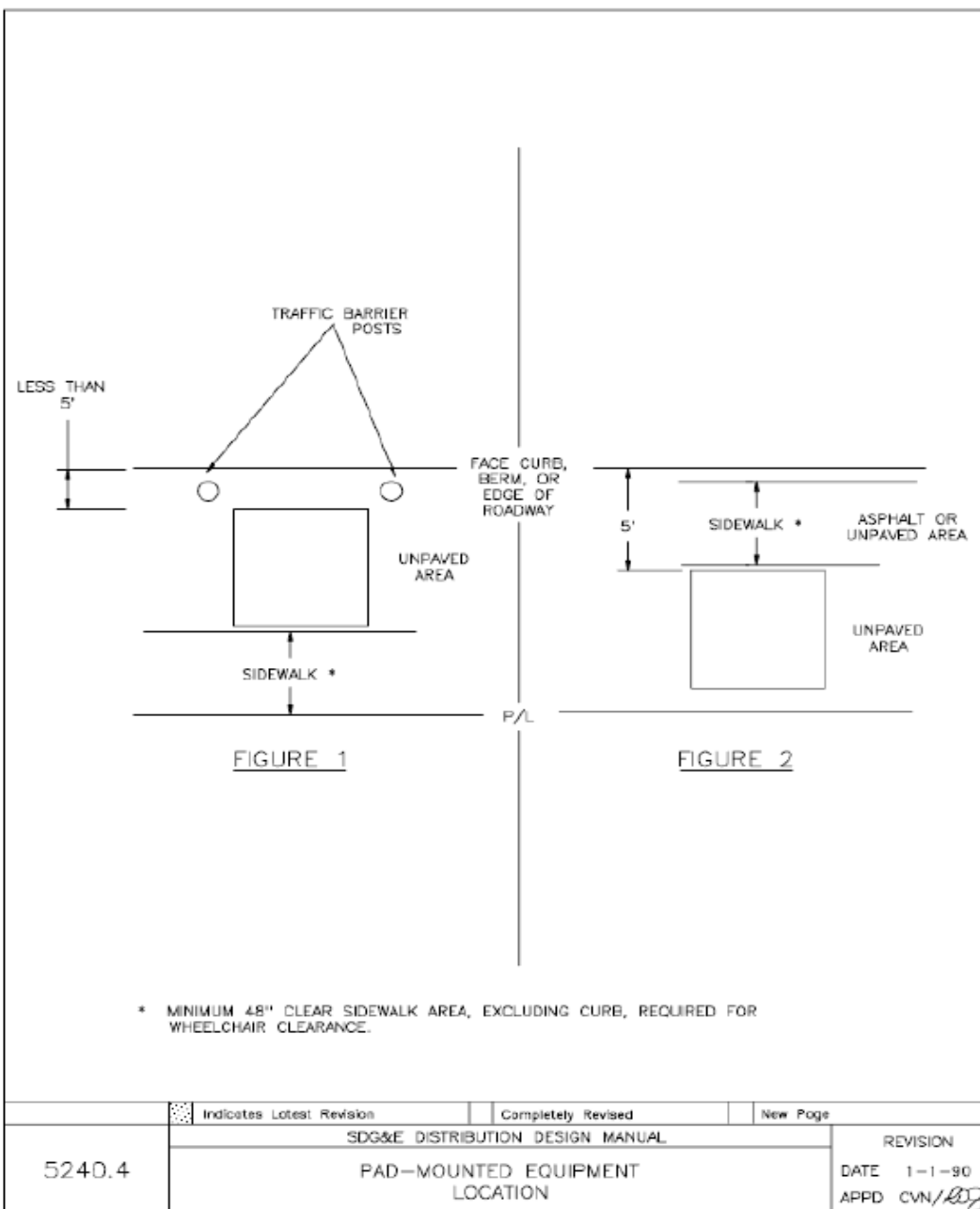
		VERTICAL					HORIZONTAL					* MIN. COVER	FACILITY SPACE ALLOTMENT (MAX)
		GS	ES	ME	U	L	GS	ES	ME	U	L		
GS	GAS SERVICE	(UYDGKNP)	—	12"	12"	—	12"	—	12"	12"	12"	24" MIN 42" MAX	2'-1/2" x 2'-1/2"
ES	ELECTRIC SERVICE	(WUVDGP)	12"	(C)	(C)	12"	12"	12"	(C)	(C)	12"	24"	5'-1/2" x 5'-1/2"
ME	MULTIPLE ELECTRIC	(WIP)	12"	(C)	(C)	12"	12"	—	(C)	(C)	—	24"	WILL VARY DUE TO BOARD AMPACITY
U	FOREIGN UTILITY TELCO, CATV	(UVFIJ)	—	12"	6"	—	12"	12"	—	—	12"	18"	9" x 9"
L	FOREIGN UTILITY STREET LIGHT	(UFM)	12"	12"	12"	12"	—	12"	12"	—	12"	1" or less	2'-1/2" x 2'-1/2"

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GAS STD. 7403.2	Indicates Latest Revision	Completely Revised	New Page	Information Removed	SERVICE GUIDE
REVISION	SDG&E ELECTRIC STANDARDS				
DATE 1-1-95	UNDERGROUND DISTRIBUTION (UD) TRENCHES AND UTILITY POSITIONING - S.D. COUNTY				3370.2
APPD					

## Design Manual Page 5240.4

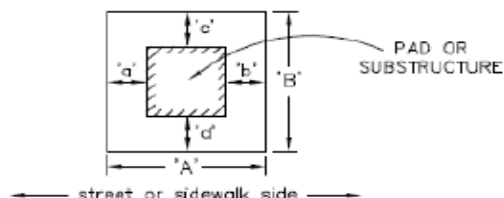
- Pad-mounted Equipment Location
- Minimum 48" clear sidewalk area excluding curb, required for wheelchair clearance
- Traffic Barrier Posts needed if clearance is less than 5 ft. from traffic



# Underground Standards 3483.1 through 3483.4

- Clearance requirements from pad-mount and subsurface equipment from above ground objects
- Required clearance from single-phase primary equipment and 3312 and 3313 handholes
- Clearance requirements for hot stick operation

**SCOPE:** THIS STANDARD SHOWS THE MINIMUM RETAINING WALL AND OPERATING CLEARANCES REQUIRED FOR PADS AND SUBSURFACE STRUCTURES.




PAD USAGE	CONST. STD.	PAD OR STRUCTURE DIMENSIONS AND MINIMUM OPERATING WIDTH		MINIMUM CLEARANCE DIMENSIONS <sup>(A)</sup> (B) (C) (D)			
		'A'	'B'	'a'	'b'	'c'	'd'
RTU PAD	3409	3'-10" (1168)	4' (1219)	18" (457)	18" (457)	18" (457)	8" (2438)
THREE-PHASE CABLE TERMINATING CABINET 600A TO 200A	3410	7'-3" (2210)	4'-9" (1461)	18" (457)	18" (457)	18" (457)	8" (2438)
THREE-PHASE CAPACITOR	3414	5'-4" (1626)	5'-0" (1524)	4'-4" (1219)	8" (2438)	18" (457)	18" (457)
THREE-PHASE SERVICE RESTORER	3415	PREFERRED 5" (1324)	4'-9" (1461)	18" (457)	18" (457)	18" (457)	8" (2438)
		ALTERNATE 5'-4" (1626)	5'-0" (1524)	4'-4" (1219)	8" (2438)	18" (457)	18" (457)
THREE-PHASE CABLE TERMINATING CABINET (200 AMP)	3416	6'-8" (2210)	2'-6" (762)	18" (457)	18" (457)	18" (457)	8" (2438)
THREE-PHASE CABLE TERMINATING CABINET (600 AMP)	3417	4' (1219)	3'-10" (1168)	8" (2438)	8" (2438)	18" (457)	18" (457)
THREE-PHASE PME 3 SWITCH (600 AMP)	3418	6'-10" (1788)	3'-8" (1118)	8" (2438)	8" (2438)	18" (457)	4'-4" (1321)
3-WAY VISTA BOX PAD	3419	5'-4" (1626)	5'-1" (1524)	3' (914)	8" (2438)	18" (457)	18" (457)
SINGLE-PHASE CABLE TERMINATOR (FUTURE TRANSFORMER INSTALLATIONS)	3421	3'-10" (1168)	4'-0" (1219)	18" (457)	18" (457)	18" (457)	8" (2438)
THREE-PHASE FUSE CABINET (VERTICAL & HORIZONTAL MOUNT)	3421	4'-0" (1219)	3'-10" (1168)	18" (457)	18" (457)	18" (457)	8" (2438)
SINGLE-PHASE FUSED SECTIONALIZING CABINET	3421	4'-0" (1219)	3'-10" (1168)	8" (2438)	8" (2438)	18" (457)	18" (457)
SINGLE-PHASE CABLE TERMINATOR	3421	3'-10" (1168)	4' (1219)	18" (457)	18" (457)	18" (457)	8" (2438)
SINGLE-PHASE TRANSFORMER (25-157 KVA)	3421	3'-10" (1168)	4' (1219)	18" (457)	18" (457)	18" (457)	8" (2438)
THREE-PHASE PME 9 SWITCH (600 AMP)	3423	6'-1" (1854)	6'-6" (1981)	8" (2438)	8" (2438)	4'-4" (1321)	4'-4" (1321)
THREE-PHASE PME 10 SWITCH (600 AMP)	3423	6'-1" (1854)	6'-6" (1981)	8" (2438)	8" (2438)	4'-4" (1321)	4'-4" (1321)
THREE-PHASE PME 11 SWITCH (600 AMP)	3423	6'-1" (1854)	6'-6" (1981)	8" (2438)	8" (2438)	4'-4" (1321)	4'-4" (1321)
THREE-PHASE AUTOMATIC TRANSFER SWITCH (600 AMP S & C)	3423	6'-1" (1854)	6'-6" (1981)	8" (2438)	8" (2438)	18" (457)	8" (2438)


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SERVICE GUIDE	Indicates Latest Revision	Completely Revised	New Page	Information Removed
3483.1	SDG&E ELECTRIC STANDARDS			REVISION
	CLEARANCE REQUIREMENTS FOR PAD-MOUNT AND SUBSURFACE EQUIPMENT FROM ABOVE GROUND OBJECTS			DATE 2-8-2011 APPD TR / MJC


# **PAD USAGE (CONTINUED)**

PAD USAGE	CONST. STD.	PAD OR STRUCTURE DIMENSIONS AND MINIMUM OPERATING WIDTH		MINIMUM CLEARANCE DIMENSIONS 			
		'A'	'B'	'a'	'b'	'c'	'd'
THREE-PHASE PRIMARY METER CABINET	3425	6'-6" (1981)	4'-11" (1499)	18" (457)	18" (457)	5' (1524)	8' (2438)
THREE-PHASE TRANSFORMER	3425	6'-6" (1981)	4'-11" (1499)	18" (457)	18" (457)	2' (610)	8' (2438)
THREE-PHASE TRANSFORMER	3426	6'-6" (1981)	6'-3" (1905)	18" (457)	18" (457)	2' (610)	8' (2438)
THREE-PHASE LIVEFRONT TRANSFORMER	3427	8'-2" (2489)	7'-8" (2337)	18" (457)	18" (457)	2' (610)	8' (2438)
THREE-PHASE TRAYER SWITCH 4-WAY	3428	7'-0" (2134)	4'-8" (1422)	4'-4" (1321)	18" (457)	2' (610)	8' (2438)
THREE-PHASE TRAYER SWITCH 5-WAY	3429	8'-8" (2642)	4'-8" (1422)	4'-4" (1321)	18" (457)	2' (610)	8' (2438)

## **CABLE JUNCTION PEDESTAL**

STRUCTURE USAGE	CONST. STD.	PAD OR STRUCTURE DIMENSIONS AND MINIMUM OPERATING WIDTH		MINIMUM CLEARANCE DIMENSIONS 			
		'A'	'B'	'a'	'b'	'c'	'd'
PRIMARY	3523A	4'-10" (1473)	2'-6" (762)	18" *** (457)	18" *** (457)	18" *** (457)	8' (2438)

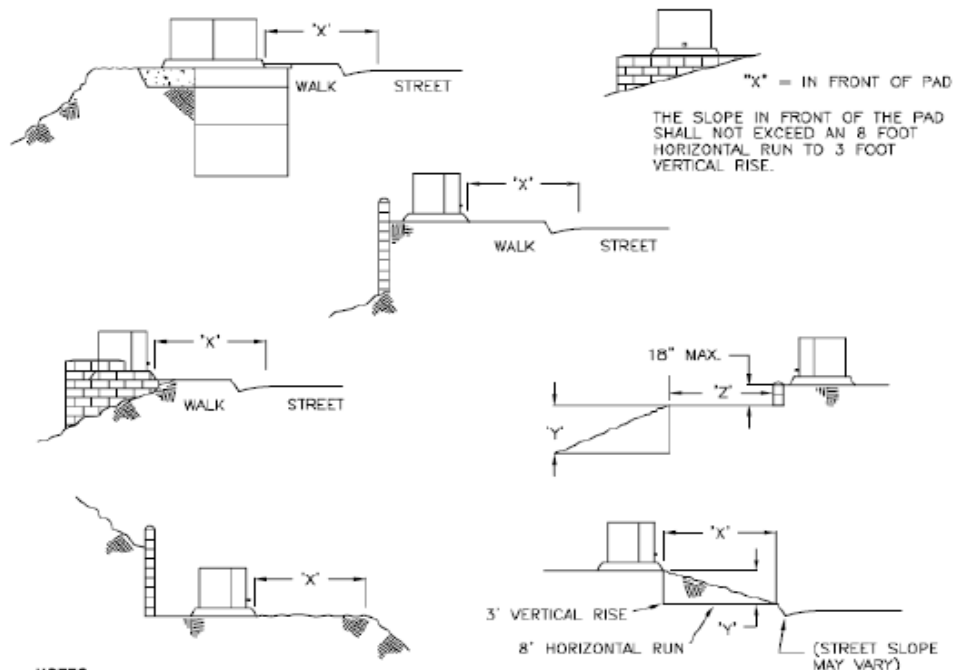
## **SUBSTRUCTURE CLEARANCES FROM ABOVE GROUND OBJECTS**

SUBSTRUCTURE USAGE	CONST. STD.	PAD OR STRUCTURE DIMENSIONS AND MINIMUM OPERATING WIDTH		MINIMUM CLEARANCE DIMENSIONS 			
		'A'	'B'	'a'	'b'	'c'	'd'
SECONDARY	3312	1'-10" (559)	2'-11" (889)	18" (457)	18" (457)	18" (457)	5' (1524)
SECONDARY/PRIMARY	3313	2'-6" (813)	3'-8" (1118)	18" (457)	18" (457)	18" (457)	5' (1524)
SECONDARY/PRIMARY	3314	6'-8" (2032)	3'-8" (1118)	5' (1524)	5' (1524)	18" (457)	5' (1524)
SECONDARY/PRIMARY	3315	7'-6" (2286)	5'-0" (1524)	5' (1524)	5' (1524)	5' ** (1524)	5' (1524)
SECONDARY/PRIMARY	3316	9'-6" (2896)	6'-0" (1829)	5' (1524)	5' (1524)	5' ** (1524)	5' (1524)
PRIMARY SWITCH ENCLOSURE	3317	10'-0" (3048)	8'-0" (2438)	5' (1524)	5' (1524)	18" (457)	18" (457)
NECK SECTION, SECONDARY/PRIMARY (3325, 3326 MANHOLE)	3332	10'-0" (1930)	8'-0" (1676)	5' (1524)	5' (1524)	18" (457)	5' (1524)

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SERVICE GUIDE	<input checked="" type="checkbox"/> Indicates Latest Revision	<input type="checkbox"/> Completely Revised	<input type="checkbox"/> New Page	<input type="checkbox"/> Information Removed
REVISION	SDG&E ELECTRIC STANDARDS			
DATE 9-25-06	CLEARANCE REQUIREMENTS FOR PAD-MOUNT AND SUBSURFACE EQUIPMENT FROM ABOVE GROUND OBJECTS			
APPD <i>AF/JJ</i>	3483.2			

# **PAD-MOUNTED EQUIPMENT HOT STICK OPERATION CLEARANCE EXAMPLES**



## **NOTES:**

- 'X' = 8 FOOT MIN. FOR HOT STICK OPERATION.
- 'Y' = SLOPE OF GRADE IN FRONT OF THE PAD NOT TO EXCEED 8 FOOT HORIZONTAL RUN TO 3 FOOT VERTICAL RISE.
- 'Z' = 6 FOOT MIN. FLAT GRADE FOR HOT STICK OPERATION.
- AN EFFORT SHOULD BE MADE TO KEEP THE 'X' MEASUREMENT TO A FLAT GRADE. IF THIS IS NOT POSSIBLE, THE 'X' MEASUREMENT SHALL NOT EXCEED AN 8 FOOT HORIZONTAL RUN TO 3 FOOT VERTICAL RISE.
- AN 8 FOOT CLEARANCE IS REQUIRED IN FRONT OF THE PAD-MOUNT EQUIPMENT FOR HOT STICK OPERATION. SDC&E HANDHOLES AND MANHOLES MAY OCCUPY OR BE INSTALLED WITHIN THE 8 FOOT CLEARANCE. PROVIDE A 5 FOOT CLEARANCE FROM PADS TO 3314 AND LARGER SUBSTRUCTURES.

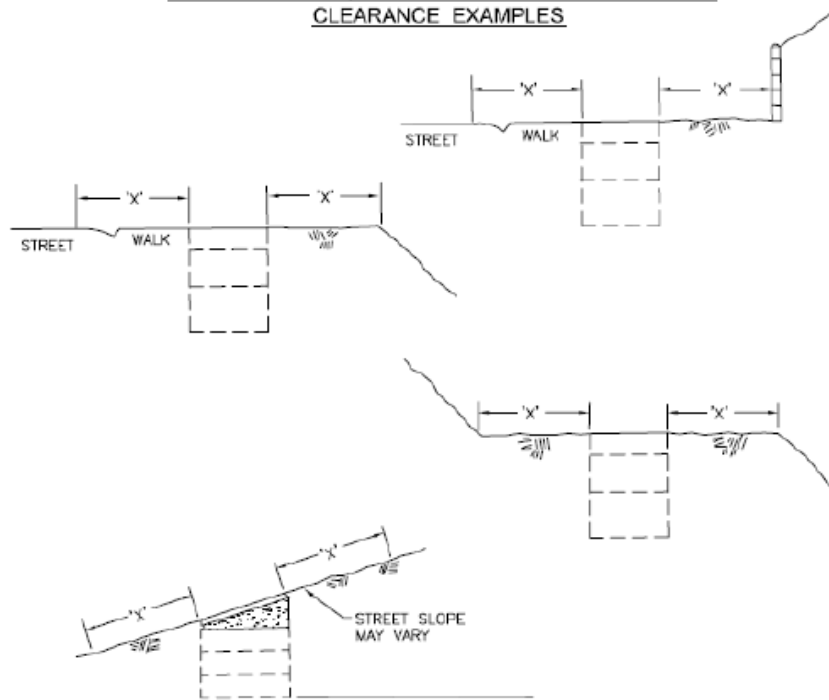
## **REFERENCE:**

- SEE STANDARD 3486 FOR RETAINING WALL REQUIREMENTS AND CLEARANCES FROM REVERSE SUBGRADE RETAINING WALLS.
- SEE STANDARD 3484 FOR INSTALLATION OF PAD MOUNTED EQUIPMENT.

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SERVICE GUIDE	Indicates Latest Revision	Completely Revised	New Page	Information Removed
REVISION	SDC&E ELECTRIC STANDARDS			
DATE 1-1-93	MINIMUM OPERATING CLEARANCE REQUIREMENTS FOR PAD-MOUNTED EQUIPMENT			3483.3
APPD <i>[Signature]</i>				

### SUBSURFACE EQUIPMENT HOT STICK OPERATION CLEARANCE EXAMPLES



#### NOTES:

- 'X' = 5 FOOT MIN. WHEN HOT STICK OPERATION IS REQUIRED. OTHERWISE BASIC CLEARANCES APPLY ACCORDING TO THE "MINIMUM OPERATING CLEARANCE REQUIREMENTS" ON PAGES 3483.1, .2, .3, AND .5.
- IF THE SUBSTRUCTURE IS NOT TO BE LOCATED IN THE STREET, AN EFFORT SHOULD BE MADE TO KEEP THE 'X' MEASUREMENT TO A FLAT GRADE. IF THIS IS NOT POSSIBLE, THE 'X' MEASUREMENT SHALL NOT EXCEED AN 8 FOOT HORIZONTAL RUN TO 3 FOOT VERTICAL RISE.
- A 5 FOOT CLEARANCE IS REQUIRED IN FRONT OF THE SUBSTRUCTURE FOR HOT STICK OPERATION. SDG&E HANDHOLES AND MANHOLES MAY OCCUPY OR BE INSTALLED WITHIN THE 8 FOOT CLEARANCE REQUIRED IN FRONT OF SDG&E "PAD-MOUNTED" EQUIPMENT. PROVIDE A 5 FOOT CLEARANCE FROM PAD TO 3314 AND LARGER SUBSTRUCTURES.

#### REFERENCE:

- SEE STANDARD 3485 FOR INSTALLATIONS OF SUBSTRUCTURES ON SLOPING GRADES.

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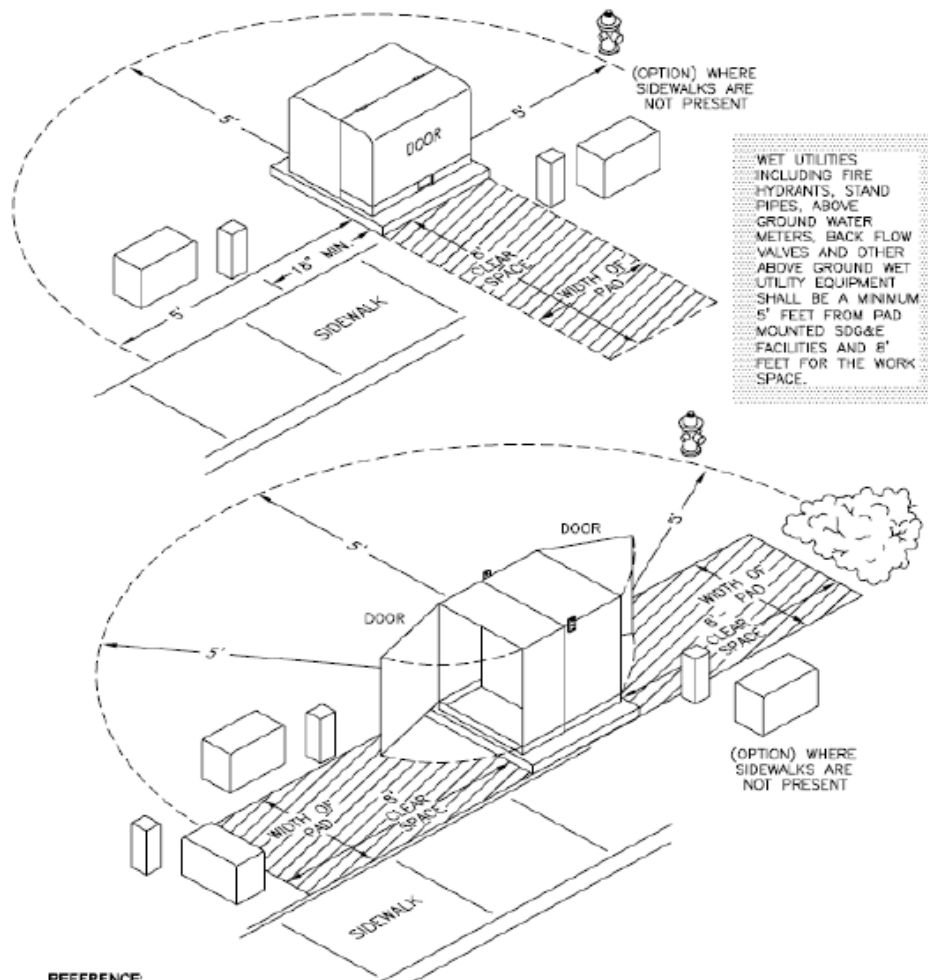
SERVICE GUIDE	Indicates Latest Revision	Completely Revised	New Page	Information Removed
3483.4				
SDG&E ELECTRIC STANDARDS				
MINIMUM OPERATING CLEARANCE REQUIREMENTS FOR SUBSURFACE EQUIPMENT				REVISION DATE 1-1-93 APPROVED <i>[Signature]</i>

# **Underground Standard 3486.3**

## **Clearances Between SDG&E Facilities**

- Clearances between SDG&E facilities and above ground objects
- When sidewalks are present and not present
- Minimum hot stick clearance

**SCOPE:** THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM ABOVE GROUND OBJECTS AND MINIMUM HOT STICK CLEARANCE.



**REFERENCE**

SEE STANDARD 3486.2 FOR RETAINING WALL REQUIREMENTS AND SINGLE-PHASE PAD LOCATIONS SHOWING CATV FOR TELCO LOCATIONS.

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SDG&E ELECTRIC STANDARDS				
3486.3	CLEARANCES BETWEEN SDG&E FACILITIES AND OTHER ABOVE GROUND OBJECTS			REVISION DATE 11-16-06 APFD TR /JDN

# **SDG&E Service Standard & Guide**

## **Page 692.8 Service & Metering Equipment Post/Pedestal**

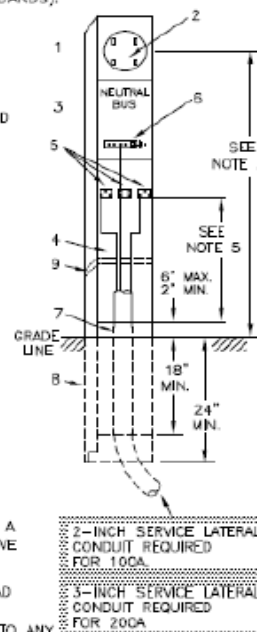
- Service Cable - Pull & Terminating Section
- Minimum and Maximum Height of Meter
- Grounding Leg
- Minimum Depth of Post

**SCOPE:** THIS STANDARD APPLIES TO SINGLE-FAMILY OR MOBILE HOME RESIDENTIAL SERVICES RATED 100 AMPERES MINIMUM, 225 AMPERES MAXIMUM, SINGLE-PHASE 120/240-VOLTS. (THIS STANDARD IS NOT APPLICABLE FOR COMMERCIAL SERVICE. REFER TO PAGE 692 THRU 692.2 FOR COMMERCIAL METER PEDESTAL SERVICE STANDARDS).

**TYPICAL UNDERGROUND SERVICE AND METER POST/PEDESTAL**

**NOTES:**

1. THE SERVICE AND METERING EQUIPMENT SHALL BE TESTED, LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY. THIS SERVICE AND METERING EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SDG&E'S STANDARDS. AN ELECTRICAL INSPECTION CLEARANCE FROM THE AUTHORITY HAVING JURISDICTION MUST BE GIVEN TO SDG&E BEFORE SERVICE CAN BE ESTABLISHED AND A METER SET.
2. THE METER SOCKET SHALL BE PROVIDED WITH A SEALING RING. METER SOCKET SHALL BE MOUNTED ON A SUPPORT AND ATTACHED TO THE METER PANEL. THE SOCKET SHALL BE FACTORY-WIRED WITH THE CONDUCTORS IN A SEPARATE OR BARRIERS RACEWAY FROM THE SERVICE TERMINATING LUGS TO THE METER SOCKET. THESE CONDUCTORS SHALL BE INACCESSIBLE FROM THE MAIN DISCONNECT AND POWER OUTLET SECTION. THE CONDUCTORS WHICH EXTEND TO THE METER SOCKET SHALL BE CONNECTED AT THE SERVICE TERMINATING LUGS INDEPENDENTLY OF THE CONNECTION FOR THE SERVICE LATERAL CONDUCTORS. THE MINIMUM METER HEIGHT IS 36" ABOVE GRADE LINE WHEN THE METER IS ENCLOSED, OR 48" MINIMUM IF EXPOSED. METER PANELS SHALL BE REMOVABLE, BUT SHALL BE NON-REMOVABLE WHEN METER IS IN PLACE. 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 OR INSPECTION.
3. THE SERVICE MAIN DISCONNECT AND POWER OULET SECTION SHALL HAVE BARRIERS INSTALLED TO PREVENT ACCESS TO THE SERVICE CABLE PULL AND TERMINATING SECTION AND TO UNMETERED CONDUCTORS WHICH CONNECT TO THE SOCKET.
4. THE SERVICE CABLE PULL AND TERMINATING SECTION SHALL BE COVERED WITH A SEALABLE AND REMOVABLE PANEL OR PANELS, EXTENDING FROM 2" TO 6" ABOVE GRADE, AND WHEN REMOVED, GIVE FULL ACCESS TO THE SERVICE TERMINATING LUGS. ACCESS TO THE SERVICE TERMINATING LUGS MAY BE FROM EITHER THE FRONT OR THE REAR OF THE POST. ACCESS SHALL BE UNRESTRICTED BY LOAD CONDUITS OR RACEWAYS.
5. A MINIMUM 12" OPENING SHALL BE MAINTAINED FROM THE TERMINATING LUGS TO ANY FIXED PANEL BELOW THE LUGS. THE MINIMUM LUG HEIGHT IS 17" ABOVE GRADE LINE, THE MAXIMUM IS 48". THE SERVICE TERMINATING LUGS SHALL BE #2 TO 250 KCMIL ALUMINUM BODIED PRESSURE TYPE FOR CONNECTION OF THE SERVICE LATERAL CONDUCTORS. A SINGLE TERMINATING LUG PER PHASE & NEUTRAL IS PREFERRED. IF TWO TERMINATING LUGS ARE PROVIDED PER PHASE, SDG&E REQUIRES ONE OF THE LUG'S SET SCREW TO BE REMOVED AND THE HOLE TO BE FILLED WITH A COMPOUND ACCEPTABLE TO THE MANUFACTURER. THIS REQUIREMENT IS NECESSARY TO AVOID ENERGY DIVERSION. THE SPACE BETWEEN TERMINATING LUGS, FROM LUGS TO SIDES OF POST, OR FROM LUGS TO PANEL ABOVE, SHALL BE 1-1/2" MINIMUM. RIGID INSULATING BARRIERS ARE REQUIRED AND SHALL PROJECT 1/4" MINIMUM BEYOND ANY ENERGIZED PARTS WHEN THIS SPACE IS REDUCED. TERMINATING LUGS MAY BE POSITIONED EITHER IN-LINE OR STAGGERED, AND ACCESS SHALL BE UNOBSTRUCTED WHEN ALL SERVICE CONDUCTORS ARE IN PLACE. THE NEUTRAL TERMINATING LUG SHALL BE BONDED TO THE POST/PEDESTAL.
6. AN ACCESSIBLE GROUNDING LEO SHALL BE PROVIDED FOR A MINIMUM #1/0 AWG GROUNDING CONDUCTOR.
7. THE POST SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 4" X 8" ID. A FIXED PANEL SHALL EXTEND 2" MINIMUM AND 6" MAXIMUM ABOVE GRADE AND 18" MINIMUM BELOW GRADE.
8. THE MINIMUM DEPTH OF THE POST IN THE GROUND SHALL BE 24" WITH OPENINGS AT THE BASE TO PERMIT THE SERVICE LATERAL CONDUIT TO ENTER INTO THE POST WITHOUT CUTTING THE 24" RADIUS BEND.
9. A MOISTURE BARRIER, LOCATED BELOW ALL TERMINALS AND OTHER LIVE PARTS, OR ADEQUATE VENTILATION SHALL BE PROVIDED TO INHIBIT THE CONDENSATION OF MOISTURE.
10. FOR AUTHORIZATION TO ATTACH TELEPHONE AND CABLE TV TERMINATING FACILITIES, CONSULT THE UTILITY.



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REVISION	Indicates Latest Revision	Completely Revised	New Page	Information Removed
DATE 1-6-2011 APPD BRB/MJC				
SDG&E SERVICE STANDARDS & GUIDE ELECTRIC SERVICE AND METERING EQUIPMENT RESIDENTIAL UNDERGROUND SERVICE AND METER POST/PEDESTAL				692.8

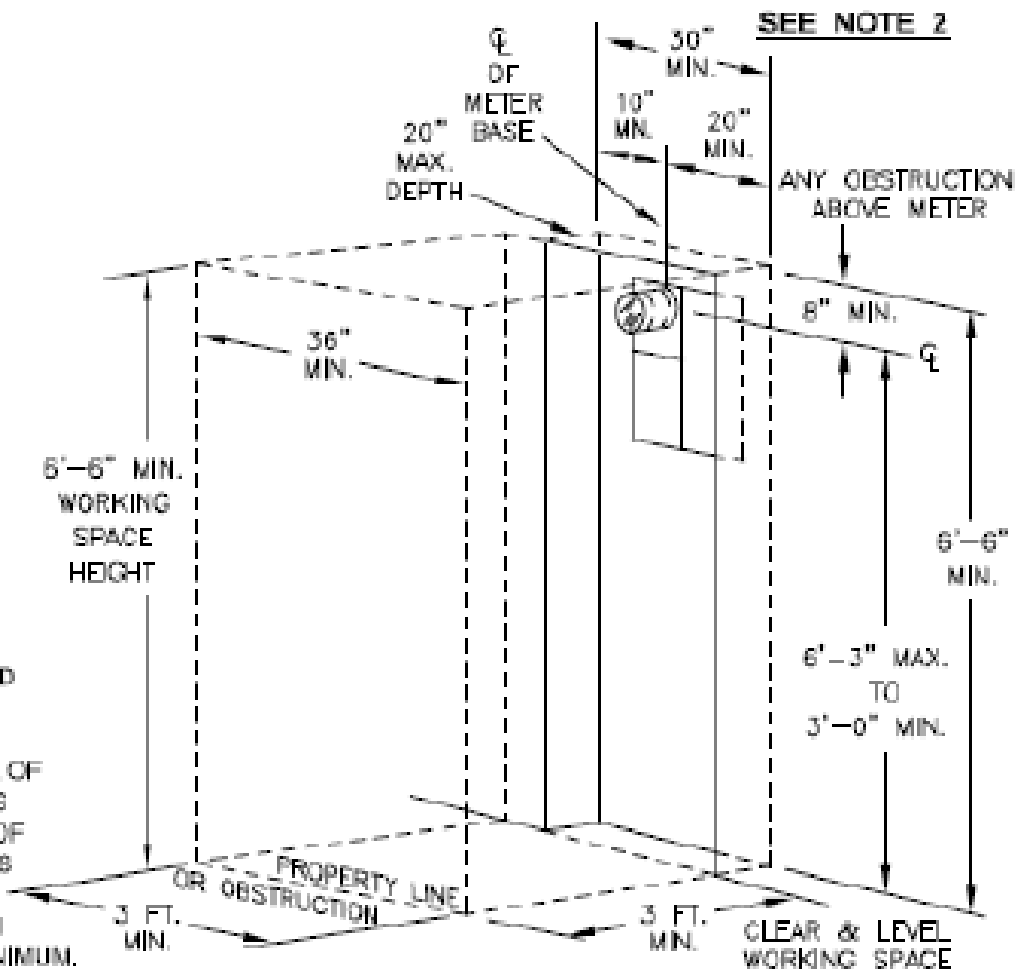
# **SDG&E Service Guide Page 605**

## **General Dimensions – Residential Single Meter Installation**

- Heights
- Clearances
- Working Space Requirements

**FIGURE 3**  
RECESS SINGLE METER  
"RESIDENTIAL APPLICATION ONLY"  
SEE PAGE 606 FOR  
ADDITIONAL REQUIREMENTS

**NOTE 2:** THE 10" & 20" DIMENSIONS MAY VARY DEPENDING ON SITE CONDITIONS AND EQUIPMENT CONFIGURATION, BUT IN NO CASE SHALL THE LEFT OR RIGHT SIDE CLEARANCE FROM CENTERLINE OF METER TO AN OBSTRUCTION BE LESS THAN 10", AND THE OVERALL WIDTH OF WORKING SPACE WITHIN THE RECESS MUST BE 30" MINIMUM. ONCE OUTSIDE OF THE RECESS THE WIDTH OF WORKING SPACE MUST BE 36" MINIMUM.



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	Indicates Latest Revision	Completely Revised	New Page	Information Removed
REVISION	SDG&E SERVICE STANDARDS & GUIDE			
DATE 2-16-2011	ELECTRIC SERVICE AND METERING EQUIPMENT 0 - 300 VOLTS			
APPD BRB/MJC	605			

# Rule 2 Sheet 1 B.2.a: Customer Voltages – Minimum for 120 & 240

## 2. Customer Service Voltages

- a. Under all normal load conditions, distribution circuits will be operated so as to maintain secondary service voltage levels to customers within the voltage ranges specified below:

Nominal Two-Wire And Multi-Wire Service Voltage	Minimum Voltage To All Services	Maximum Service Voltage On Residential And Commercial Distribution Circuits	Maximum Service Voltage On Agricultural And Industrial Distribution Circuits
120	114	120	126
208	197	208	218
240	228	240	252

## General Order 95

- Table 2 - Basic minimum allowable clearance of wires from other wires at crossings, in midspans and at supports
- Table 2A – Minimum clearances of wires from signs mounted on buildings and isolated structures
- Table 4 – Minimum safety factors

**Table 2: Basic Minimum Allowable Clearance of Wires from Other Wires at Crossings, in Midspans and at Supports (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following This Table) All Clearances are in Inches**

Case No.	Nature of Clearance and Class and Voltage of Wire, Cable or Conductor Concerned	Other Wire, Cable or Conductor Concerned										
		Supply Conductors (Including Supply Cables)										
		A Span Wires, Guys and Messengers	B Trolley Contact Conductors 0 - 750 Volts	C Communication Conductors (Including Open Wire, Cables and Service Drops)	D 0 - 750 Volts (Including Service Drops) and Trolley Feeders (a)	E 750 - 7,500 Volts	F 7,500 - 20,000 Volts	G 20,000 - 35,000 Volts	H 35,000 - 75,000 Volts	I 75,000 - 150,000 Volts	J 150,000 - 300,000 Volts	K (kk) 300,000 - 550,000 Volts
	<b>Clearance between wires, cables and conductors not supported on the same poles, vertically at crossings in spans and radially where colinear or approaching crossings</b>											
1	Span wires, guys and messengers (b)	18 (c)	48 (d, e)	24 (e)	24 (e)	36 (f)	36	72	72	78	78 (gg)	138 (hh)
2	Trolley contact conductors, 0 - 750 volts	48 (d, e)	-	48 (d)	48 (d, h)	48	72	96	96	96	96 (gg)	156 (hh)
3	Communication conductors	24 (e)	48 (d)	24	48 (i)	48 (dd)	72	96	96	96	96 (gg)	156 (hh)
4	Supply conductors, service drops and trolley feeders, 0 - 750 volts (qq)	24 (e)	48 (d, h)	48 (i)	24	48	48	96 (oo)	96	96	96 (gg)	156 (hh)
5	Supply conductors, 750 - 7,500 volts (qq)	36 (f)	48	48 (dd)	48	48 (h)	72	96 (oo)	96	96	96 (gg)	156 (hh)
6	Supply conductors, 7,500 - 20,000 volts (qq)	36	72	72	48	72	72	96 (oo)	96	96	96 (gg)	156 (hh)
7	Supply conductors, more than 20,000 volts (qq)	72 (g)	96 (g)	96 (g)	96 (g, oo)	96 (g, oo)	96 (g, oo)	96 (g, oo)	96 (g)	96	96 (gg)	156 (hh)
	<b>Vertical separation between conductors and/or cables, on separate crossarms or other supports at different levels (excepting on related line and buck arms) on the same pole and in adjoining midspans</b>											
8	Communication Conductors and Service Drops	-	-	12 (j, rr)	48 (k, l, m, n, pp)	48 (k)	72 (m, n)	72 (m)	72	78	87 (gg)	147 (hh)
9	Supply Conductors Service Drops and Trolley Feeders, 0 - 750 Volts	-	-	48 (k, l, m, n, pp)	24 (n, k, m, c)	48 (k, m, p)	48 (k, m, c)	72 (m, nn)	72	78	87 (gg)	147 (hh)

**Table 2 (Continued)**

		Other Wire, Cable or Conductor Concerned										
Case No.	Nature of Clearance and Class of Wire, Cable or Conductor Concerned	Supply Conductors (Including Supply Cables)										
		A Span Wires, Guys and Messengers	B Trolley Contact Conductors 0 – 750 Volts	C Communication Conductors (Including Open Wire, Cables and Service Drops)	D 0 – 750 Volts (Including Service Drops) and Trolley Feeders (a)	E 750 – 7,500 Volts	F 7,500 – 20,000 Volts	G 20,000 – 35,000 Volts	H 35,000 – 75,000 Volts	I 75,000 – 150,000 Volts	J 150,000 – 300,000 Volts	K (kc) 300,000 – 550,000 Volts
19	Guys and span wires passing conductors supported on the same poles	(cc)	-	3 (bb)	3	6	9	12	18	24	48 (i)	86 (j)
	<b>Vertical and horizontal insulators clearances between conductors</b>											
20	Vertical clearance between conductors of the same circuit on horizontal insulators	-	-	-	-	24	24	24	36 or 48 (l, mm)	48 (mm)	48 (mm)	48 (mm)
	<b>Vertical clearance above supply and/or communication lines</b>											
21	Antennas and associated elements on the same support structure. (tt, uu)	24 (vv)	48 (vv)	24(vv)	48(vv, xx)	72	72	72	120 (vv, yy)	-	-	-

**Table 2—A Minimum Clearances of Wires from Signs Mounted on Buildings and Isolated Structures (a) (Letter References Denote Modifications of Minimum Clearances as Referred to in Notes Following this Table)**

Case No.	Nature of Clearance Type of Sign	A Span Wires (Other than Trolley Span Wires) Overhead Guys and Messengers, Communication Cables and Communication Service Drops	B Communication Open Wire Conductors Supply Cables Treated as in Rule 57.8 and Supply Service Drops 0 - 750 Volts	C Supply Conductors, Supply Cables of 0 - 750 Volts and Trolley Span Wires	D Supply Conductors and Supply Cables, 750 - 300,000 Volts (b)	E Supply Conductors and Supply Cables, 300 - 550 kV
1	Vertical clearance above all signs upon which men can walk	8 Feet	8 Feet	8 Feet	12 Feet	20 Feet (g)
2	Vertical clearance above all signs upon which men cannot walk	2 Feet	2 Feet	3 Feet	8 Feet	20 Feet (g)
3	Vertical clearance under signs which are illuminated	2 Feet (c)	2 Feet (e)	3 Feet	Prohibited (f)	Prohibited
4	Vertical clearance under signs which are non-illuminated	6" (d)	1 Foot	3 Feet	Prohibited (f)	Prohibited
5	Horizontal clearance from signs which are illuminated	3 Feet (c)	3 Feet (e)	3 Feet	6 Feet	15 Feet (h)
6	Horizontal clearance from signs which are non-illuminated	6" (d)	1 Foot	3 Feet	6 Feet	15 Feet (h)

Table 4: Minimum Safety Factors

Element of Line	Grades of Construction			
	Grade "A"	Grade "B"	Grade "C"	Grade "F"
Conductors, splices and conductor fastenings (other than tie wires)	2	2	2	1
Pins	2	2	2	1
Pole line hardware	2	2	2	2
Line Insulators (mechanical)	3	2	2	2
Guy insulators (mechanical)				
Interlocking	2	2	2	2
Noninterlocking wood	3	3	3	-
Noninterlocking glass fiber	3	2 (a)	2 (b)	-
Guys, except in light loading rural districts	2	2	2	1.25
Guys in light loading rural districts	2	1.5	1.5	1.25
Messengers and span wires	2	2	2	2
Foundations against uplift	1.5	1.5	1.5	-
Foundations against depression	3	2	2	-
Poles Towers and Structures				
Wood poles	4	3	2	1
Metallic service and meter poles	-	2	2	-
Structural or tubular metallic poles, towers, structures, crossarms and metallic members of foundations	1.5 (c)	1.25 (c)	1.25 (c)	-
Reinforced concrete poles	4	3	3	-
Prestressed concrete poles, structures and crossarms	1.8	1.5	1.5	-
Other structural materials	1.5	1.25	1.25	-
Crossarms				
Wood	2	2	2	1
Steel	1.5	1.25	1.25	-
Concrete	1.8	1.5	1.5	-
Other structural material	1.5	1.25	1.25	-

# GO 95 - Vegetation Management

## 35 Vegetation Management

Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances. The minimum clearances established in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions, shall be maintained. (Also see Appendix E for tree trimming guidelines).

# **GO 128 – Rules for Construction of Underground Supply & Communication Systems**

## **Purpose of Rules**

- Uniform requirements for underground electrical supply & communication systems
- Ensure adequate service and secure safety to all persons engaged in the construction, maintenance, operation or use of the systems and to the public in general

## Applicability of GO 128 Rules

- Apply to all underground electrical supply systems used in connection with public utility service
- Meet requirements of any statutes, regulations or local ordinances applicable to such enclosures in buildings

# GO 128

## Limiting Conditions Specified

- The requirements specified in these rules as to spacing, clearance, and strength of construction are limiting conditions expressed as minimum or maximum values as indicated
- In cases where two or more requirements establish limiting conditions the most stringent condition shall be met

## GO 128 - Location

Facilities shall be located with consideration for safety of property, the general public and persons engaged in the construction, operation and maintenance thereof.

## GO 128 – Tables 1 & 2

- Clearance & Depth Requirements
- Miscellaneous Dimensions & Clearance Requirements

**Table 1 Clearance and Depth Requirements for Supply and Communication Systems**

Case Number	Nature of Clearance or Depth	Requirements <sup>2</sup>	Reference Rules
1	Clearances Cables when independently installed <sup>1</sup>	3" concrete, 4" brick, or 12" earth	33.4A(1) (a), 33.4A(2) (a), 43.3A
2	Cables when concurrently installed <sup>1</sup>	No separation required when parties mutually agree For random separation, see Rule 43.3B(1)	33.4A(1) (b), 33.4A(2) (b), 43.3B
3	Cables and Ducts From Foreign Structures (Except Supply or Communication Systems) when independently installed	12" when paralleling and 6" when crossing	31.4A(1), 33.4A(3)(a) 41.4A(1), 43.3A
4	Cables and Ducts From Foreign Substructures (Except Supply or Communication Systems) when concurrently installed	No separation required when parties mutually agree For random separation, see Rule 43.3B	31.4A(2), 33.4A(3) (b), 41.4A(2), 43.3B
5	Separation of Communication and Supply duct systems independently installed	3" concrete, 4" brick or 12" earth	31.4B(1), 41.4B(1)
6	Separation of Communication and Supply duct systems concurrently installed	No separation required when parties mutually agree and both systems are in rigid ducts	31.4B(2), 41.4B(2)
7	Depth Depth of Cables and Ducts Under Railroads	30" below street railroads, 42" below other railroad	31.4C(1), 33.4B, 41.4C(1), 43.3
8	Depths of Supply Cables and Ducts	0 - 750 Volts: 24" below Thoroughfares, 18" elsewhere (Sidewalks, Parkways and Private Property) 751 - 35,000 Volts: 24" Above 35,000 Volts: 36"	31.4C, 33.4C, 33.4D
9	Depths of Communication Cables and Ducts	18" below Thoroughfares, 12" elsewhere (Sidewalks, Parkways and Private Property)	41.4C, 43.3

<sup>1</sup> For definitions of independently and concurrently installed, see Rules 20.5 and 21.8.

<sup>2</sup> Clearances and depths shown may be reduced under certain conditions - see referenced rules. For measurement of clearance, see Rule 17.9.

**Table 2 Miscellaneous Dimensions and Clearance Requirements for Supply and Communication Systems**

Case Number	Nature of Clearance or Depth	Requirements <sup>1</sup>	Reference Rules
1	From railroad tracks, of risers and other above-ground terminations	General Order 26-D and 118	31.5D, 33.5D, 41.5C, 43.4
2	Size and shape of manholes	Minimum inside dimension shall be 4 feet by 5 feet high. See Public Utilities Code, Section 8051 for specific requirements	32.4, 42.4
3	Manhole openings	Not less than 26" in diameter or 26" x 24" rectangular	32.5, 42.5
4	Manhole location	Manhole openings shall not be less than 3 feet from any railroad rail	32.8, 42.8
5	Sectionalizing Switches	Maximum height of operating handles and viewing windows: 6-1/2 feet	34.2B
6	Oil filled equipment	From building surface: 3 feet From non-combustible building surface: 2 feet	34.3D

<sup>1</sup> Dimensions and clearances shown may be reduced under certain conditions - see referenced rules.

## **SDG&E MHP Transfers Current Process – Based on PU Code 2791-2799**

- MHP Representative submits written notification to SDG&E
- SDG&E Reviews MHP Qualifications
- MHP pays engineering fee. Submits records
- SDG&E inspects facility and determines qualification for transfer

**ATTACHMENT A**      **MOBILE HOME PARK – MANUFACTURED HOUSING COMMUNITY**  
**Statement of Transfer Eligibility**

To: San Diego Gas & Electric Company

From: \_\_\_\_\_ Date: \_\_\_\_\_

Re: Request to Transfer Distribution System Responsibilities To SDG&E From

\_\_\_\_\_  
(name of mobile home park or manufactured housing community)

California Public Utilities Code 2791, et. seq., provides that responsibility for existing gas and/or electric distribution systems within a *bona fide* mobile home park or manufactured housing community (MHP/MHC) may be transferred to SDG&E. To allow a preliminary determination on the eligibility of the system within my MHP/MHC for transfer under 2791, I offer the following information to SDG&E as being true to the best of my knowledge.

Yes	No	
		a) The MHP/MHC is owned by a single entity, such as a sole proprietor or a partnership or corporation.
		b) Each month, or other regular interval, the residents pay rental or lease fees to the single entity referred to in "a)" above.
		c) The MHP/MHC has been subdivided so that it is possible for individuals to purchase the lots upon which their units sit, or other condominium-like arrangements.
		d) Each year, the entity referred to in "a)" above files a _____ or the report with the City/County of _____ or the State of California's _____ Department.
		e) Required – Attached is a current Assessor's map and my MHP/MHC is on parcel(s) _____.

Additional information: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I understand a preliminary assessment of eligibility will be made based on the information I have provided. Further, I understand eligibility may change, depending on subsequent information.

Signed: \_\_\_\_\_ Title: \_\_\_\_\_

Telephone number: (\_\_\_\_\_) \_\_\_\_\_

Mailing address: \_\_\_\_\_

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SERVICE PLANNING MANUAL SAN DIEGO GAS & ELECTRIC						SPM NO. 250
ISSUED BY DISTRIBUTION ASSET MANAGEMENT				REVISED DATE February 2002	PAGE 6 of 9	

**ATTACHMENT B****DISTRIBUTION SYSTEMS TRANSFER CHECK LIST****ELECTRIC CONSTRUCTION / INSTALLATION DOCUMENTATION**

DOCUMENT	MANDATORY
Electric Distribution design drawings & load calculations	
Electric Distribution As-Built drawings	YES
Certified Lab report of contents of all oil filled electrical equipment	YES
Electric Distribution operating procedures	
Electric Distribution system material lists and specifications (conduit type and diameter, cable type and voltage rating)	
Foreign Utility As-Built drawings (sewer, water, CATV, Telco)	YES
Inspection Maintenance Records	YES
Electric Distribution Back-up System Records (if applicable)	

**GAS CONSTRUCTION / INSTALLATION DOCUMENTATION**

DOCUMENT	MANDATORY
Gas system piping design drawings	
Gas system piping As-Built drawings	YES
Emergency Shutoff Valve location drawings	YES
Gas system load design calculations	
Auxiliary system drawings (instrumentation, cathodic protection, recording systems)	
Gas system material lists and specifications (piping system materials, age, diameter, lengths, MAOP, etc.)	YES
Construction Specifications (pipe installation and joining procedures, trench design, backfill material, compaction, etc.)	YES
Gas system installation pressure tests and inspection records	YES
Local Governmental Permit Documentation	YES
Construction contractors and consultants utilized	

**OPERATION AND MAINTENANCE DOCUMENTATION**

DOCUMENT	MANDATORY
Pipe damage and leak repair maintenance records	YES
Pipeline system operating history (charts, records)	
Periodic leak survey records	YES
Valve Maintenance records	YES
Cathodic Protection (CP) survey records	YES
Cathodic Protection (CP) maintenance records	
O&M Contractors and consultants utilized	
Emergency Response and park resident safety information	
Customer metering maintenance and repairs	

**REQUIRED DOT 49 CFR 192 CODE COMPLIANCE DOCUMENTATION**

DOCUMENT	MANDATORY
Reportable Incident Reports	YES
Operating and Maintenance (O&M) Plan	
DOT required periodic inspection and survey records	YES
CPCU/DOT oversight records (records of inspections or audits, recommendations and actions taken)	YES

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## **SDG&E MHP Transfers – Current Process – Based on PU Code 2791-2799 (continued)**

- If system doesn't qualify, SDG&E will provide a bid to replace facilities
- MHP pays engineering fee for bid
- SDG&E develops design and cost quote
- Customer pays and construction is started
- Tenants submit applications for service

## **SDG&E MHP Transfers – Current Process – Based on PU Code 2791-2799 (continued)**

- MHP is responsible for costs of excavation, installation of substructures, conduit, gas pipe, meter panels and surface repair
- SDG&E is responsible for costs of electric utility equipment, including cable and transformers

# Website for SDG&E Standards and Service Guide

<http://www.sdge.com/builderservices/servicestandards/index.shtml>