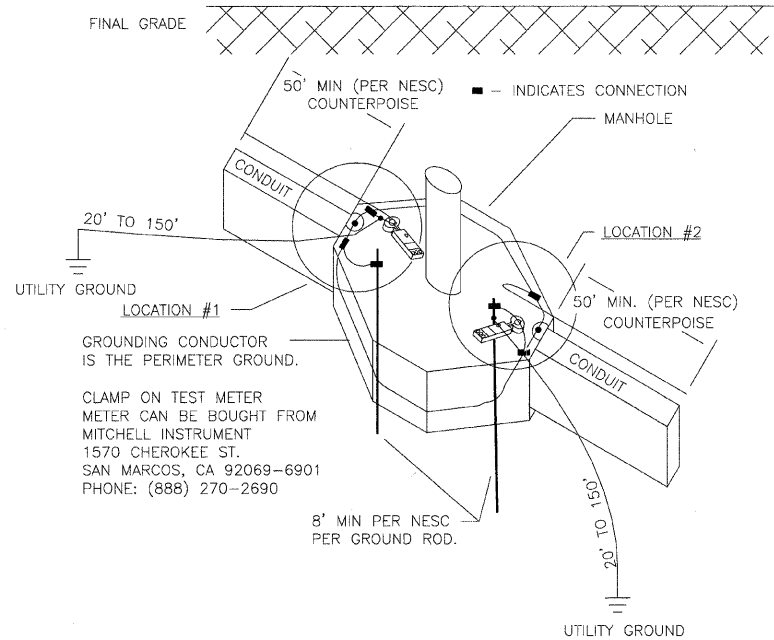


SAMPLE INSTALLATION (CLAMP ON METER)



CLAMP ON TEST METER
METER CAN BE BOUGHT FROM
MITCHELL INSTRUMENT
1570 CHEROKEE ST.
SAN MARCOS, CA 92069-6901
PHONE: (888) 270-2690

NOTE:

OBSERVE ALL SAFETY REQUIREMENTS AND THEN REMOVE COVERING ON THE GROUND CONDUCTOR IF PRESENT AND PROVIDE SUFFICIENT ROOM FOR THE MODEL 3710/3730 JAWS, WHICH MUST BE ABLE TO CLOSE EASILY AROUND THE CONDUCTOR. THE JAWS CAN BE PLACED AROUND THE GROUND ROD ITSELF.
NOTE: THE CLAMP MUST BE PLACED SO THAT THE JAWS ARE IN AN ELECTRICAL PATH FROM THE SYSTEM NEUTRAL OR GROUND WIRE TO THE GROUND ROD, OR COUNTERPOISE.
SELECT THE CURRENT RANGE "A". CLAMP ONTO THE GROUND CONDUCTOR AND MEASURE THE GROUND CURRENT. THE MAXIMUM CURRENT RANGE IS 30 A. IF THE GROUND CURRENT EXCEEDS 5 A, GROUND RESISTANCE MEASUREMENTS ARE NOT POSSIBLE. DO NOT PROCEED FURTHER WITH THE MEASUREMENT. REMOVE THE CLAMP-ON TESTER FROM THE CIRCUIT, NOTING THE LOCATION FOR MAINTENANCE, AND CONTINUE TO THE NEXT TEST LOCATION. RECORD CURRENT ON DATA SHEET.

AFTER NOTING THE GROUND CURRENT, SELECT THE GROUND RESISTANCE RANGE Ω (OHM) AND MEASURE THE RESISTANCE DIRECTLY. THE READING YOU MEASURE WITH THE 3710/3730 INDICATES THE RESISTANCE OF THE ROD, RESISTANCE OF THE COUNTERPOISE, BUT ALSO OF THE CONNECTION TO THE SYSTEM NEUTRAL AND ALL BONDING CONNECTIONS BETWEEN THE NEUTRAL AND THE ROD.
RECORD 2 OR 4 RESISTANCE READINGS ON DATA SHEET. IF ANY ONE READING IS ABOVE 25 OHMS, CONTACT DPU-E IMMEDIATELY.
SEND COMPLETED DATA SHEET TO THE PROJECT ENGINEER AND RECORDS.

**DATA SHEET FOR RECORDING
GROUND RESISTANCE MEASUREMENT
BY THE CLAMP ON GROUND RESISTANCE TEST METHOD**

DATE: _____
TYPE OF METER AND MFG.: _____
MANHOLE NUMBER + TYPE: _____
POLE NUMBER + SIZE: _____
STREET ADDRESS: _____
NAME OF PERSON PERFORMING TEST: _____
W.F. #: _____
TEMPERATURE (AIR): ____°F
SIZE OF GROUND RODS: 5/8 DIA COPPER CLAD, UNLESS NOTED
SIZE OF CABLE FOR GROUND WIRE AND/OR COUNTERPOISE IS 4/0 COPPER (BARE) 7 STRAND, UNLESS NOTED

INSTALL FEET OF GROUND RODS TOTAL PER LOCATION		INSTALL FEET OF COUNTERPOISE TOTAL PER LOCATION		MEASURED RESISTANCE OF GROUND RODS (OHMS)		MEASURED RESISTANCE OF COUNTERPOISE (OHMS)		MEASURED RESISTANCE OF GROUND RODS AND COUNTERPOISE (OHMS)		SOIL CONDITION i.e. ROCK, CLAY SAND, WET OR DRY		METHOD OF CONNECTION TO GROUND RODS i.e. CADWELD BOLTED, AMPACT, CRIMP.		CURRENT READING (AMPS)		MEASURED WATER LEVEL IN MANHOLE (FT)		REMARKS
LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	

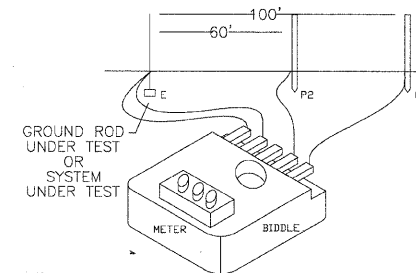
NOTE:
A HIGH READING INDICATES ONE OR MORE OF THE FOLLOWING:
1) POOR GROUND RODS.
2) OPEN GROUND CONDUCTOR.
3) HIGH RESISTANCE, DUE TO POOR CONNECTIONS ON RODS, HARDWARE & CLAMPS.
4) METER CLAMP IS IMPROPERLY CLOSED.
5) FAULTY METER.

**DATA SHEET FOR RECORDING
GROUND RESISTANCE BY THE FALL OF POTENTIAL METHOD.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	77
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

DATE: _____
TYPE OF METER AND MFG.: _____
MANHOLE NUMBER + TYPE: _____
POLE NUMBER + SIZE: _____
STREET ADDRESS: _____
NAME OF PERSON PERFORMING TEST: _____
W.F. #: _____
TEMPERATURE (AIR): ____°F
SIZE OF GROUND RODS: 5/8 DIA COPPER CLAD, UNLESS NOTED
SIZE OF CABLE FOR GROUND WIRE AND/OR COUNTERPOISE IS 4/0 COPPER (BARE) 7 STRAND, UNLESS NOTED

TEST INSTRUMENT: _____
MANUFACTURER: _____
MODEL NO.: _____
CALIBRATION DATE: _____



TEST METHOD USED
1) 3 POINT ELECTRODE AC "FALL-OF-POTENTIAL"

LOCATION	TEST METHOD	NO. OF RODS	ROD SIZE & LENGTH	DISTANCE BETWEEN RODS (FT.)	AUX. ELECTRODE TEST POINT (FT.)		RESISTANCE OHMS	REMARKS
					P2	C2		

NOTE

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		MAP NO.:	CAD FILE: 0054679001D22.DWG
PROJECT DESCRIPTION DETAILS		DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06
DATE 4-01-09	WORK REQUEST NO. 54679	CHKD:	COMPLETED BY:
ISSUED	ENGINEER PSM	APPRV:	SCALE: NTS
REVISION	1 2 3		SHEET 22 OF 30