



# Appendix H - Danvers Electric

## Figures and Illustrations for the Terms and Conditions

Revision ID	Date	Notes	Approval (initials and date)
1.0	12-6-2011	The purpose of Version 1 is to release the associated figures and illustrations of the Terms and Conditions	
2.0	4-13-2012	<b>The purpose of Version 2 is to update the figures and illustrations based on the review committee's recommendations</b>	<b>MLB 06-19-2012</b>



# WARNING

## KEEP OUT

*Electrical  
Equipment Inside*  
If opened or damaged notify:

**978-774-0005**

## UNDERGROUND ELECTRIC CABLE

*Call Before Digging!*

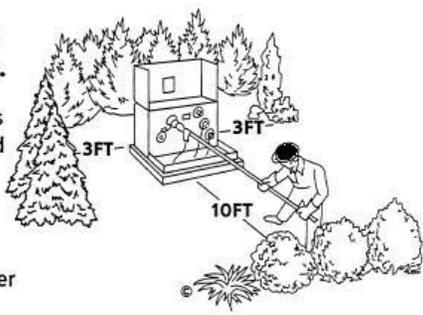
**Toll Free Statewide:  
888-344-7233**

*Call 72 hours ahead*

### Obstructions can cause delays when restoring electric service.

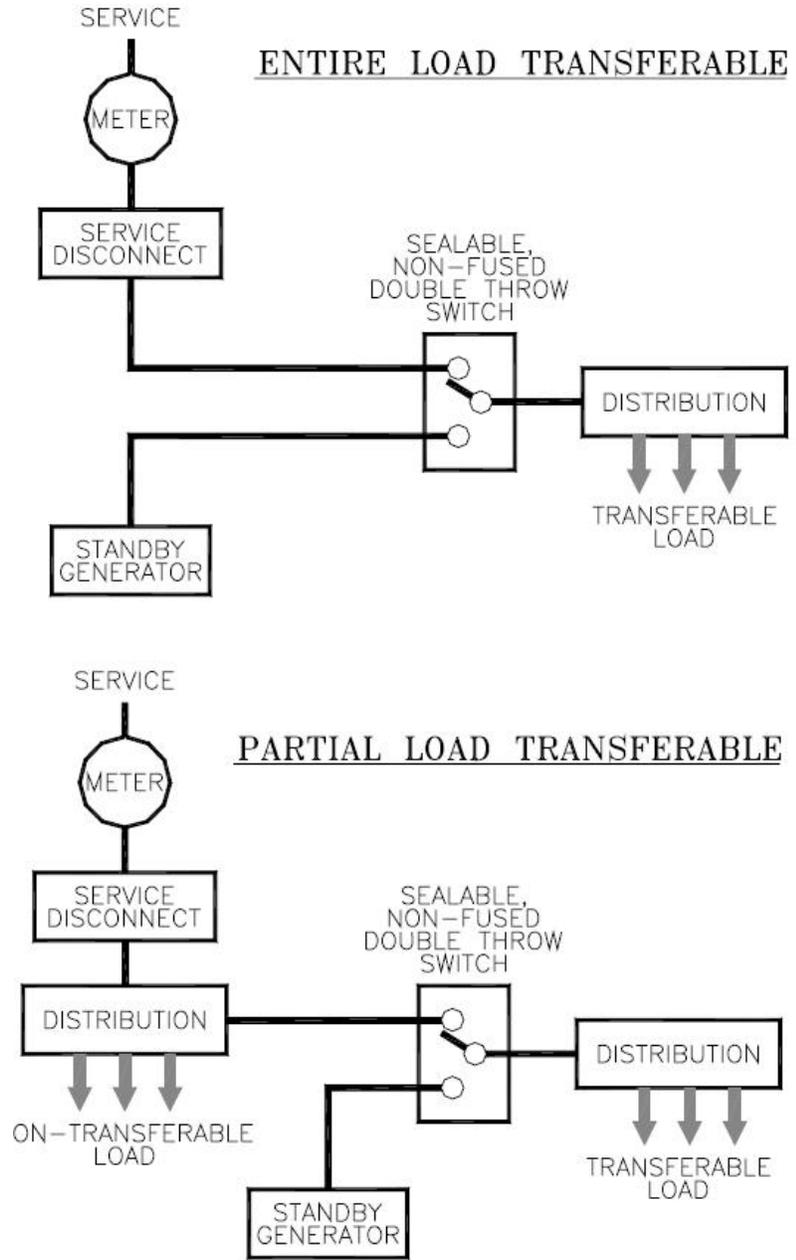
No shrubs, fences, or permanent structures can be placed within 10 FT of the front and 3 FT of the sides and back. Your power company has the right to remove these obstructions without notice to owner.

For more information call telephone number listed above.



SHD003-S-2A-XB2

FIGURE 1

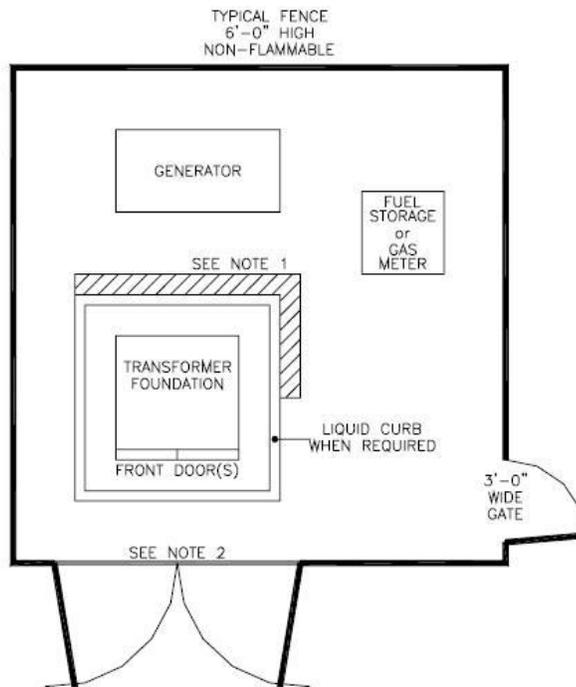


ENTIRE LOAD TRANSFERABLE

PARTIAL LOAD TRANSFERABLE

**FIGURE 2**

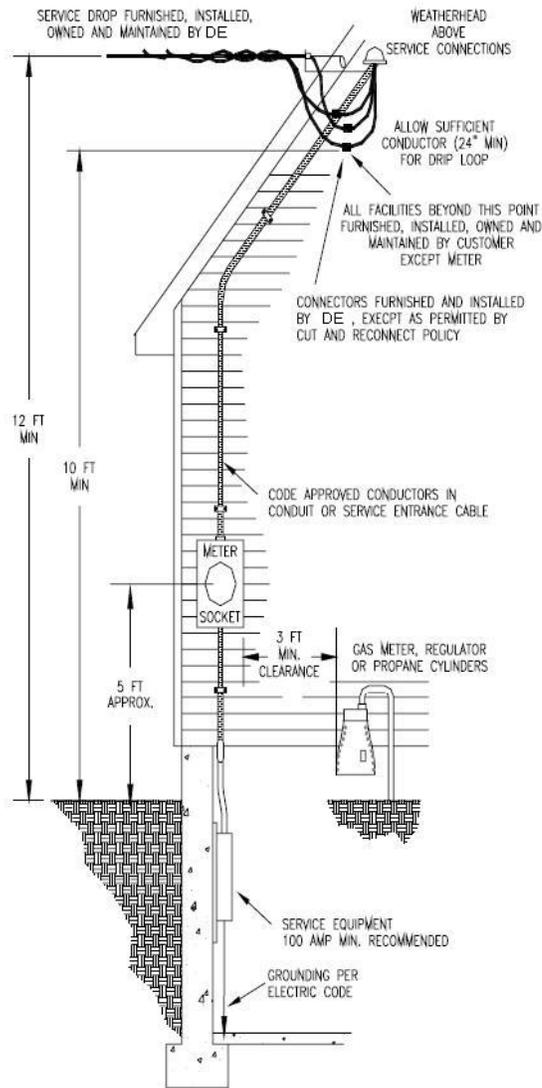
TYPICAL SWITCHING OF CUSTOMER'S EMERGENCY SUPPLY



- NOTES: 1. If less than 20' feet separation between transformer and generator or fuel storage, customer to construct masonry wall. Height above grade: 6'-0" minimum  
Depth below grade: 2'-0" minimum
2. Fence, when installed in front of transformer doors shall have operable gate(s) for access
3. A minimum of 10'-0" working clearance MUST be maintained from the front of all equipment doors
4. A minimum of 3'-0" clearance MUST be maintained from all sides of equipment

### FIGURE 3

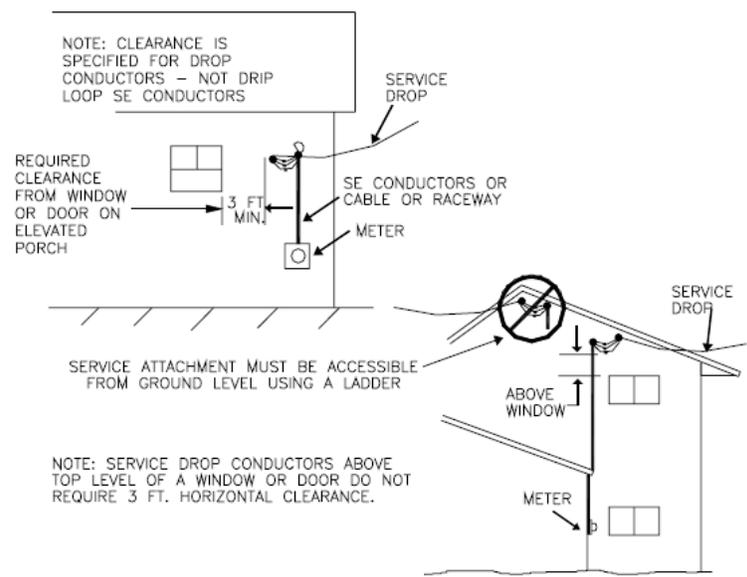
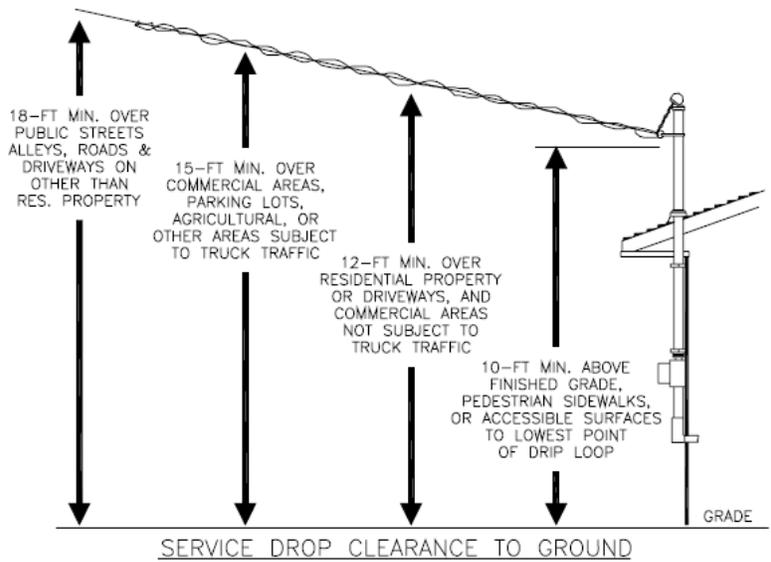
TYPICAL TRANSFORMER ENCLOSURE



NOTES: 1. Electrician shall mark stud location for service attachment on homes with vinyl or aluminum siding

### FIGURE 4

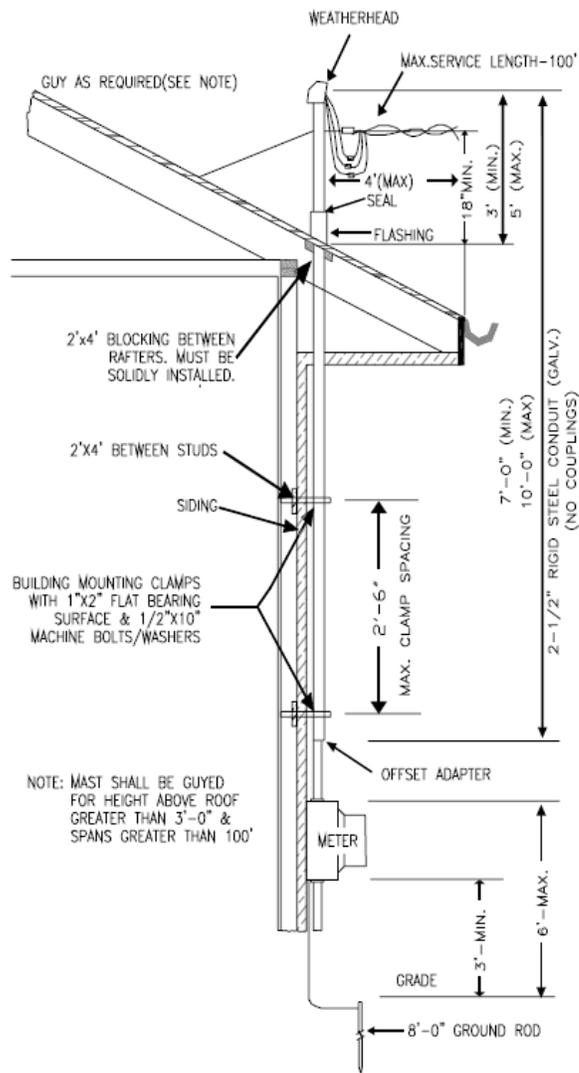
OVERHEAD SERVICE ENTRANCE FACILITIES



SERVICE DROP CLEARANCE TO BUILDING OPENINGS

**FIGURE 5**

SERVICE DROP CLEARANCE REQUIREMENTS



**FIGURE 6**

TYPICAL SERVICE MAST CONSTRUCTION  
(SERVICE DROPS TO LOW BUILDINGS)

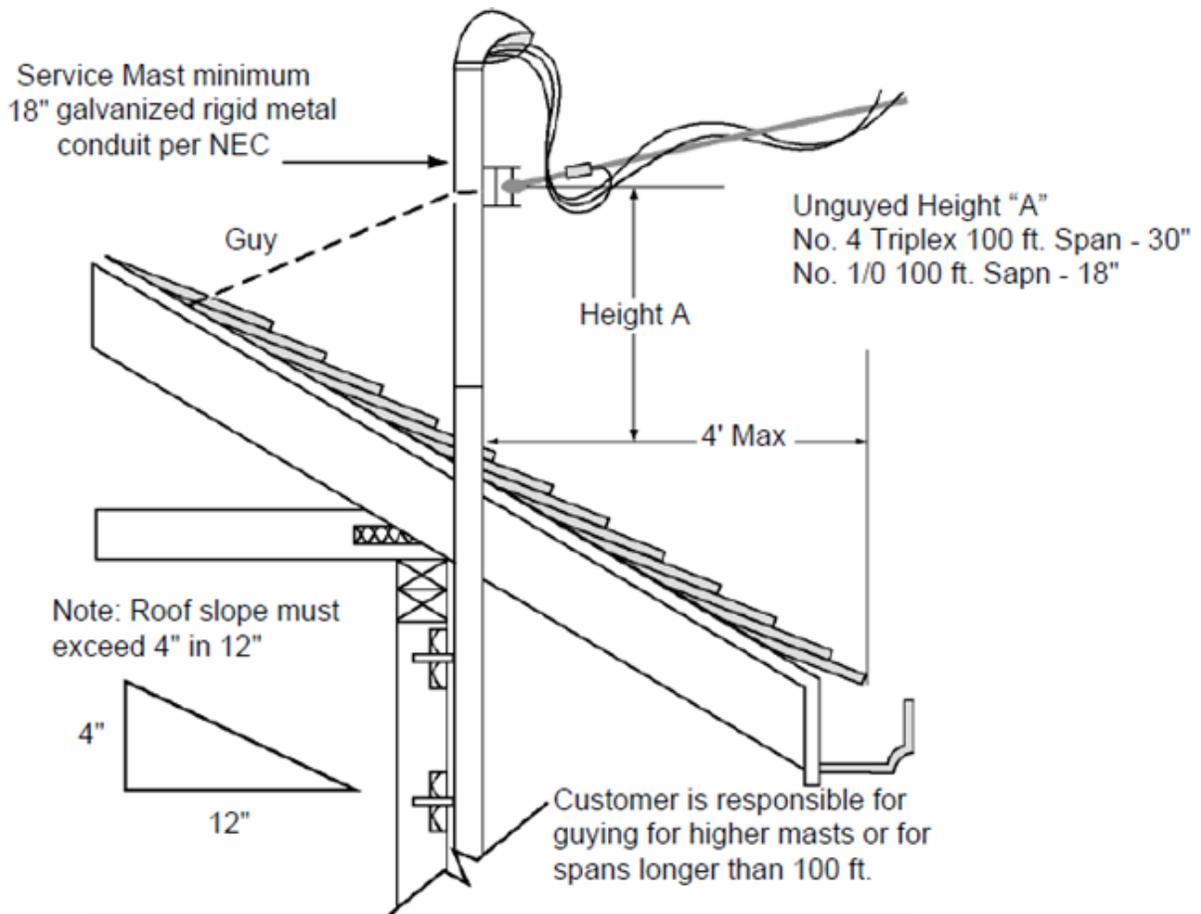


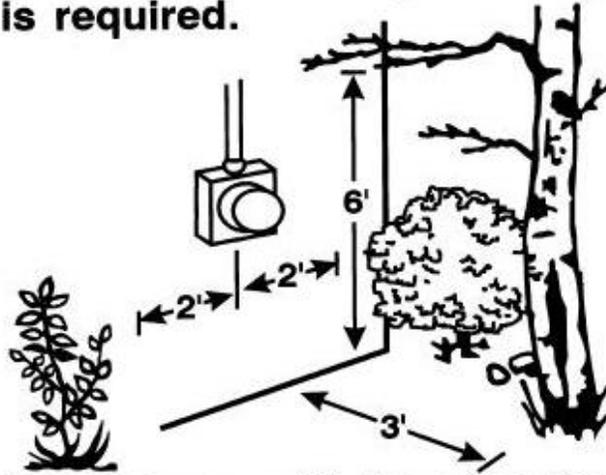
FIGURE 7: SERVICE MAST INSTALLATION

ET1006



# NOTICE

Please keep shrubs, debris, fences, and other structures clear of this area. A clearance of 4' wide X 3' deep X 6' high is required.

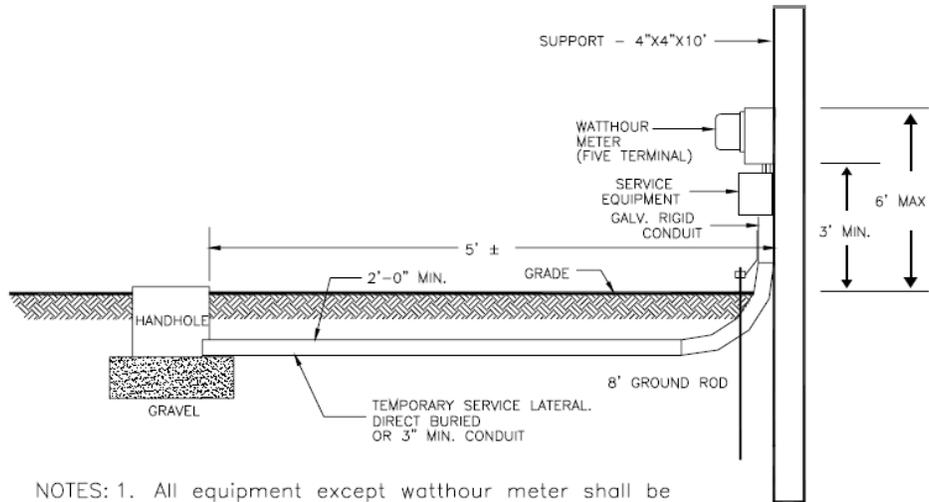


Do not tamper with the meter, its seals, or connections under penalty of law.

FIGURE 8  
WARNING AND CLEARANCE DIAGRAM

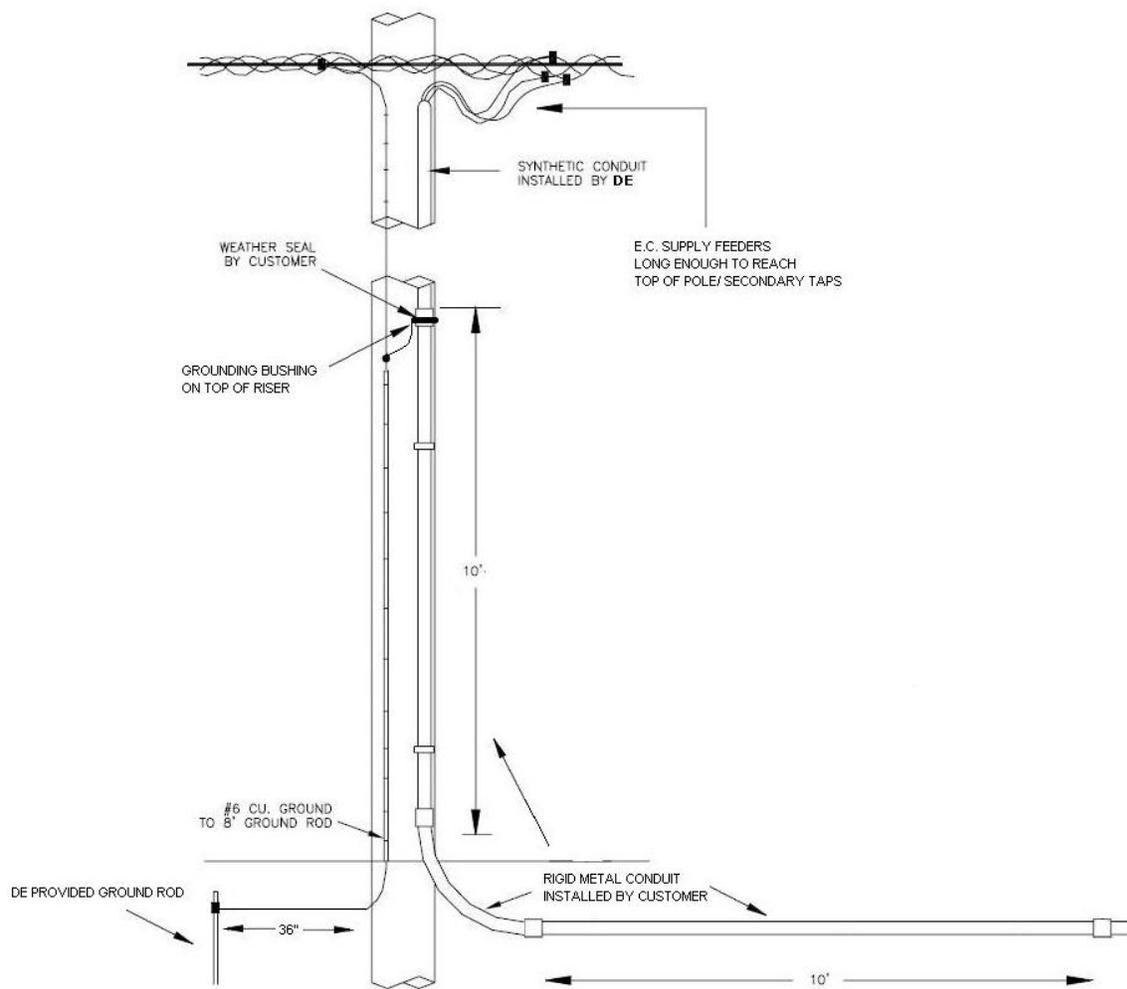




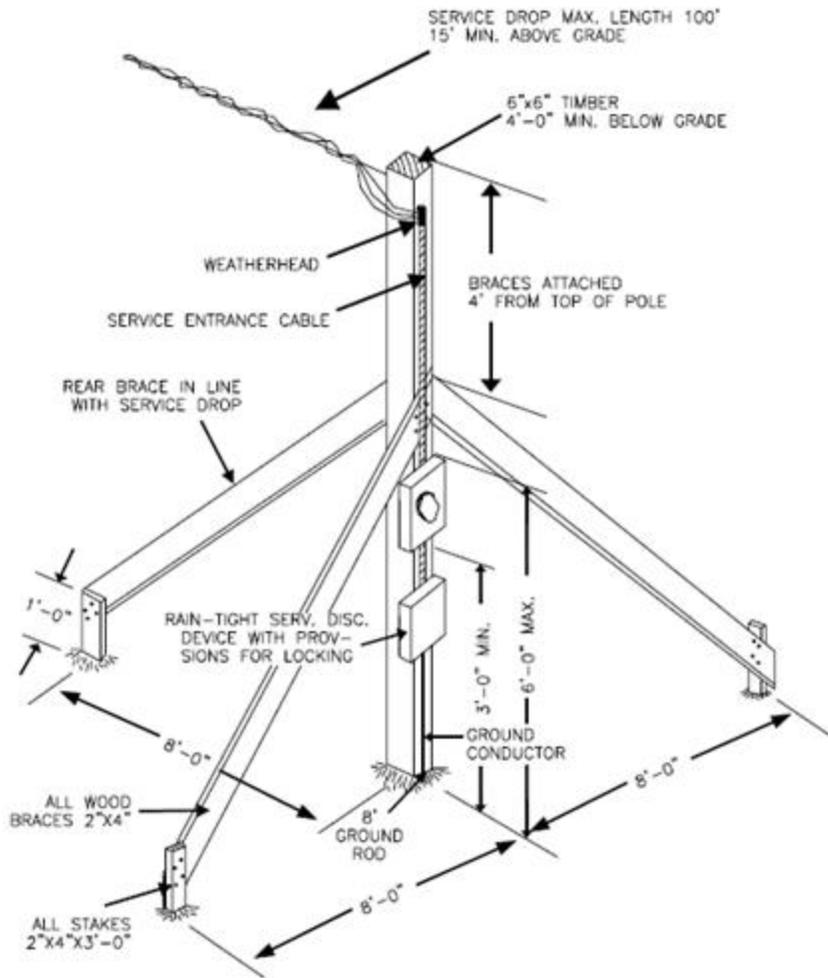


- NOTES: 1. All equipment except wathour meter shall be furnished and installed by customer
2. DE will make all service connections and disconnections
3. Install eight foot (8') loop of service wire around handhole for DE connections

**FIGURE 11**  
TEMPORARY SERVICE

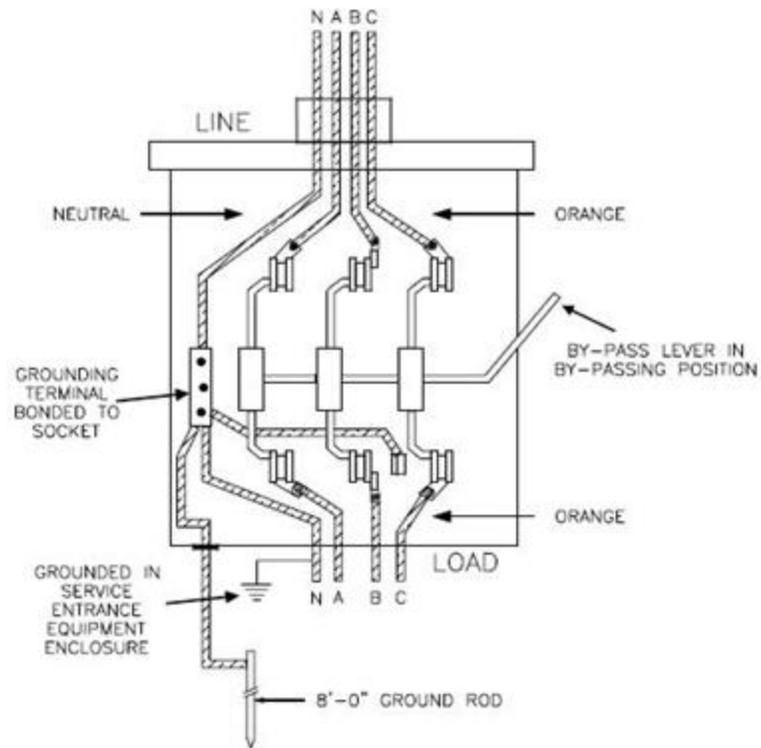


**FIGURE 12**  
 CUSTOMER SECONDARY RISER  
 600 VOLTS AND BELOW



NOTES: Ground fault protection where required.  
Refer to applicable code.

**FIGURE 13**  
TEMPORARY SERVICE STRUCTURE  
OVERHEAD DISTRIBUTION



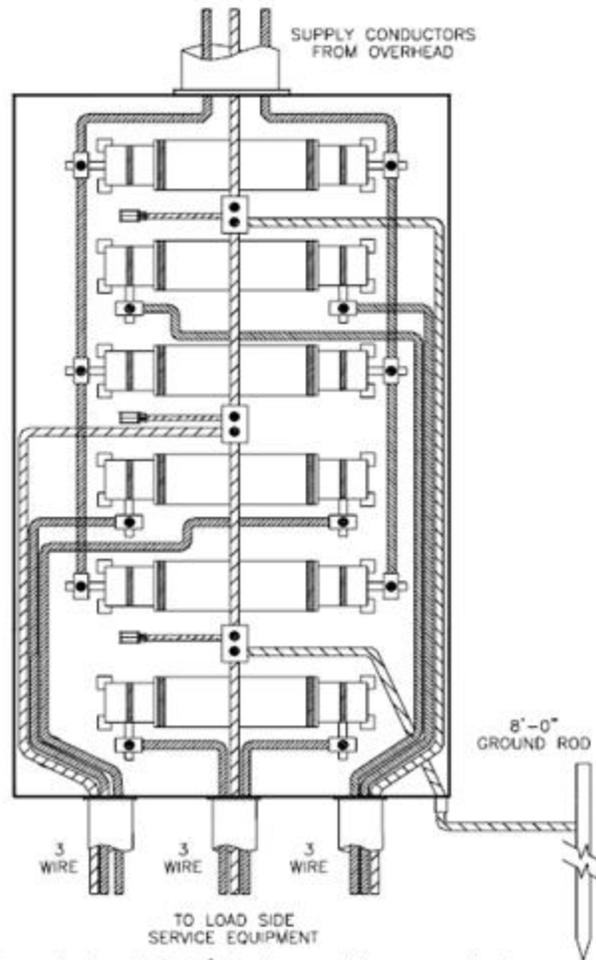
NOTES:

1. For installation on the following four-wire services
  - A. 208/120 VOLT WYE
  - B. 240/120 VOLT DELTA
2. For underground service, the supply must be connected to top terminals of meter socket
3. For 240/120 Volt Delta service, "C" phase conductor shall be the higher voltage-to-ground conductor, and be marked orange in color

**FIGURE 14**

3 $\phi$ -4W SERVICE  
 7 TERMINAL METER SOCKET  
 200 AMP MAXIMUM





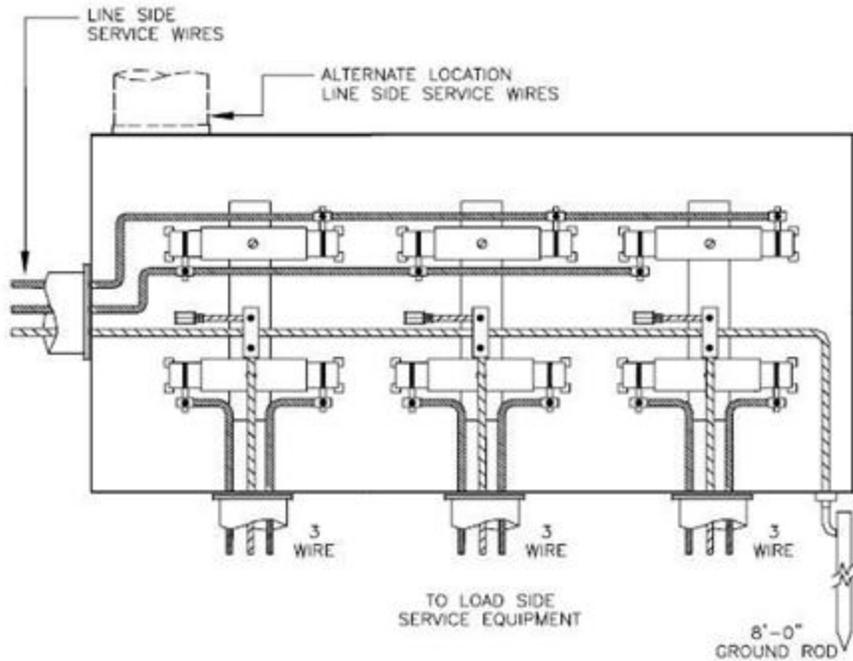
NOTES:

1. Fifth terminal at 9 O'Clock position required,
2. All meter sockets shall have a lever operated manual bypass with jaw release and flash shield
3. Outdoor installations limited to height of 3 vertical socket positions
4. For installations greater than 3 socket positions or 3 $\phi$  consult DE for additional requirements

**FIGURE 16**

MULTIPLE METERS—VERTICAL MOUNTED TROUGH  
1 $\phi$ —3w SERVICE

1 $\phi$ —3W SERVICE  
5 TERMINAL METER SOCKET  
320 AMP MAXIMUM



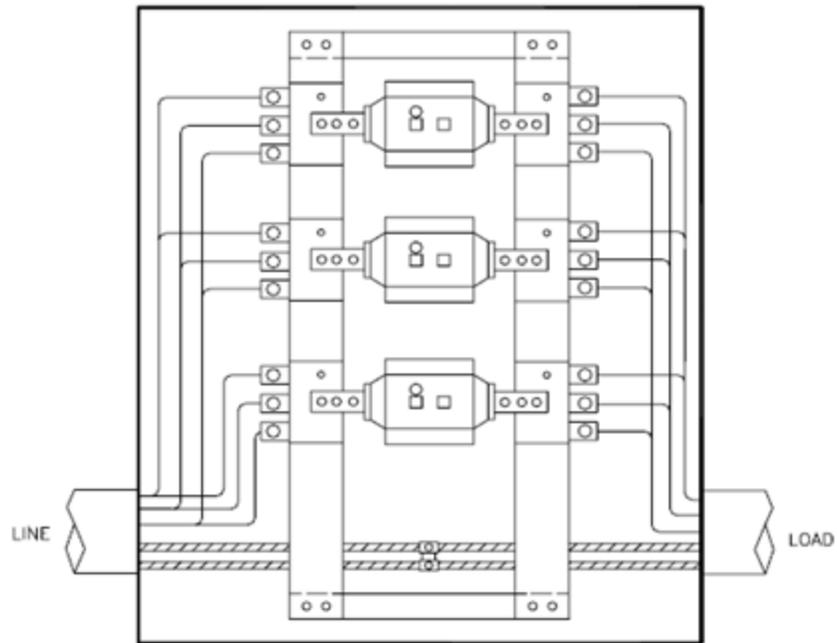
NOTES:

1. Fifth terminal at 9 O'Clock position required,
2. All meter sockets shall have a lever operated manual bypass with jaw release and flash shield
3. For installations greater than 3 socket positions or 3 $\phi$ , consult DE for additional requirements

**FIGURE 17**

MULTIPLE METERS—HORIZONTALLY MOUNTED TROUGH  
1 $\phi$ -3W SERVICE

1 $\phi$ -3W SERVICE  
5 TERMINAL METER SOCKET  
320 AMP MAXIMUM

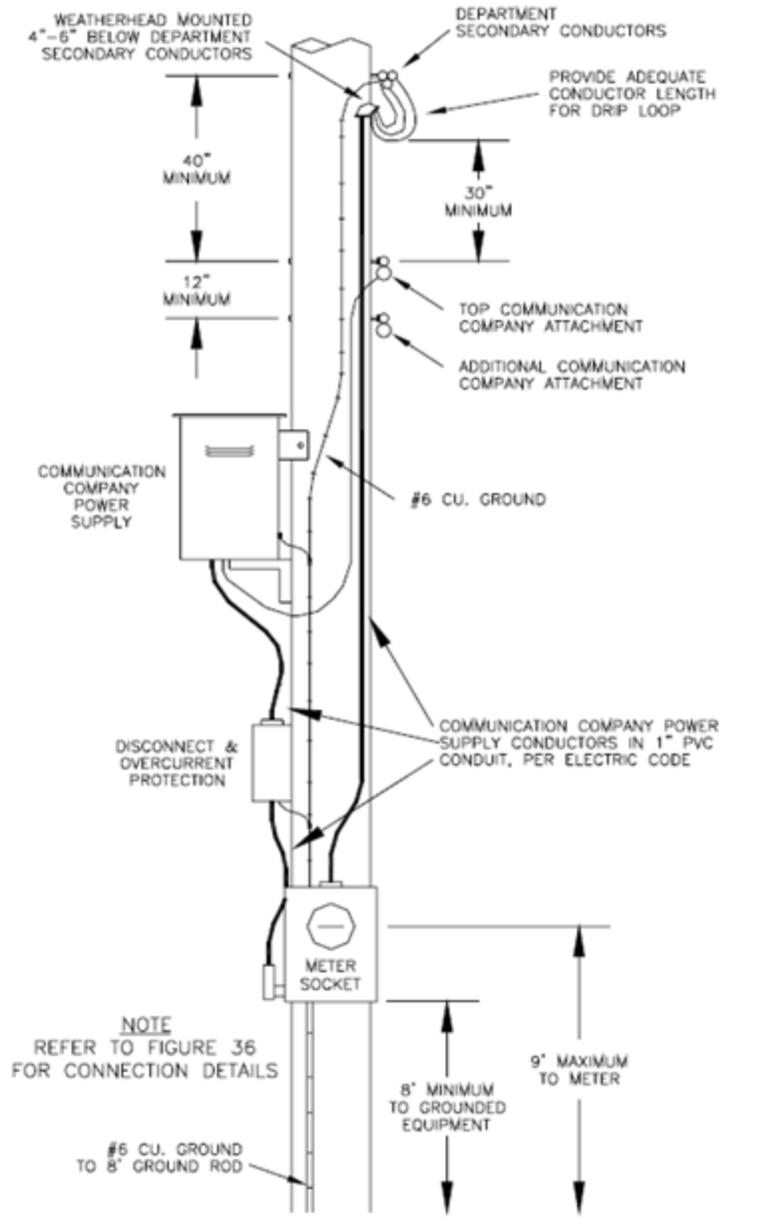


NOTES:

1. Customer to furnish and install meter socket and conduit from CT cabinet
2. DE to furnish and install all required conductors from CT cabinet to meter socket
3. Consult DE regarding CT cabinet sizes

**FIGURE 18**

CURRENT TRANSFORMER INSTALLATION  
 3 $\phi$ -4W SERVICE  
 208Y/120 & 480Y/277

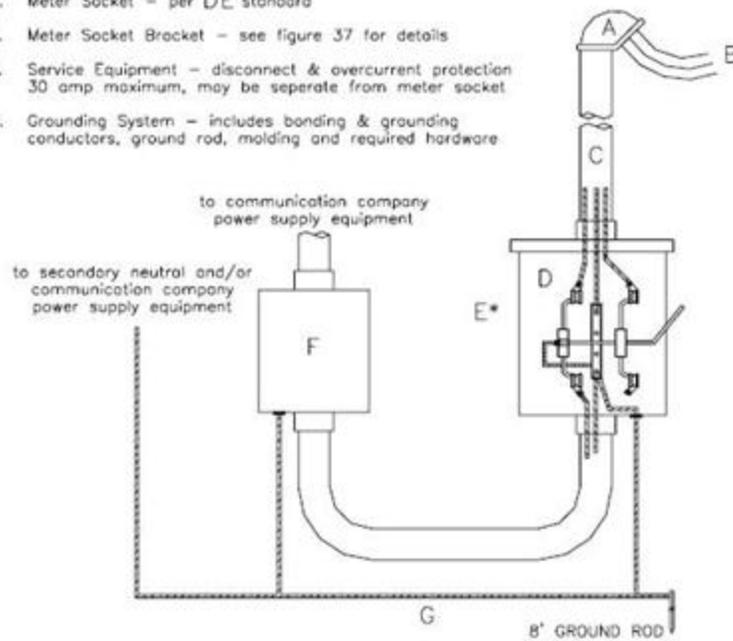


**FIGURE 19**

WOOD POLE INSTALLATION DETAILS  
METERED POWER SUPPLY  
TO COMMUNICATION INSTALLATIONS

## LEGEND

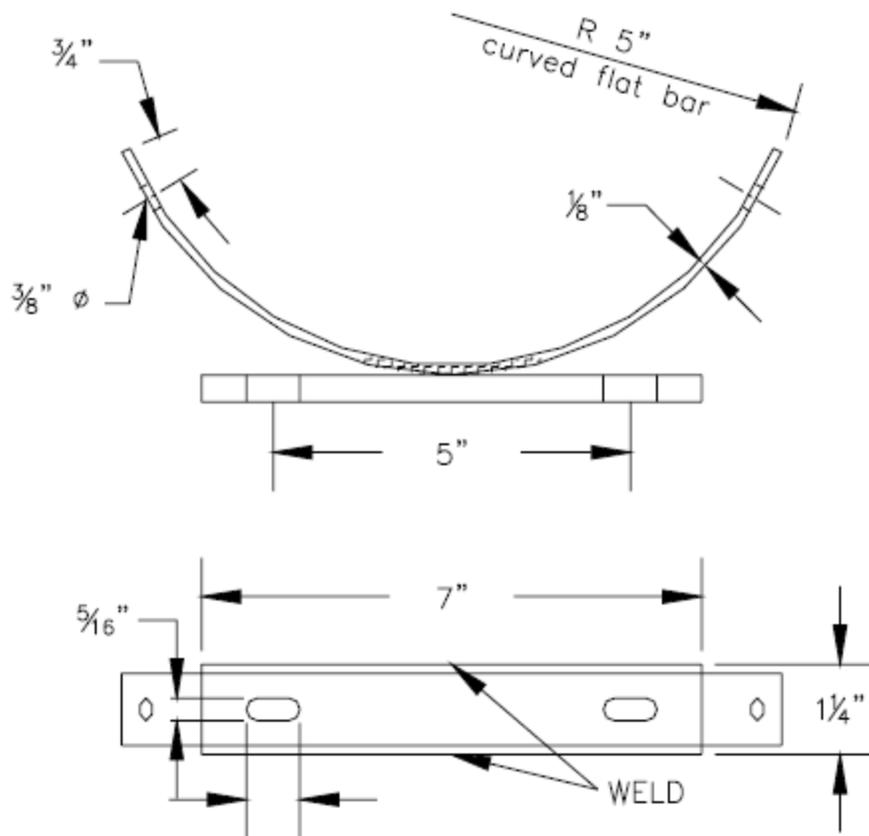
- A. Weatherhead - located to allow for driploop and secondary connections by DE
- B. Conductors - #10 stranded copper, type THHN or THWN two black and one white
- C. Conduit - 1" PVC, weather sealed to meter socket
- D. Meter Socket - per DE standard
- E. Meter Socket Bracket - see figure 37 for details
- F. Service Equipment - disconnect & overcurrent protection 30 amp maximum, may be separate from meter socket
- G. Grounding System - includes bonding & grounding conductors, ground rod, maling and required hardware



1. Communication company shall furnish and install items A through G, shown above
2. Item D (meter socket) shall be located on the quarter of the pole downstream from traffic
3. Installer shall provide adequate grounding conductor at weatherhead for connection to DE aerial ground
3. DE will furnish and install all connections to department secondary conductors and aerial ground

## FIGURE 20

WOOD POLE INSTALLATION  
DETAIL OF CONNECTIONS  
FOR COMMUNICATION INSTALLATIONS



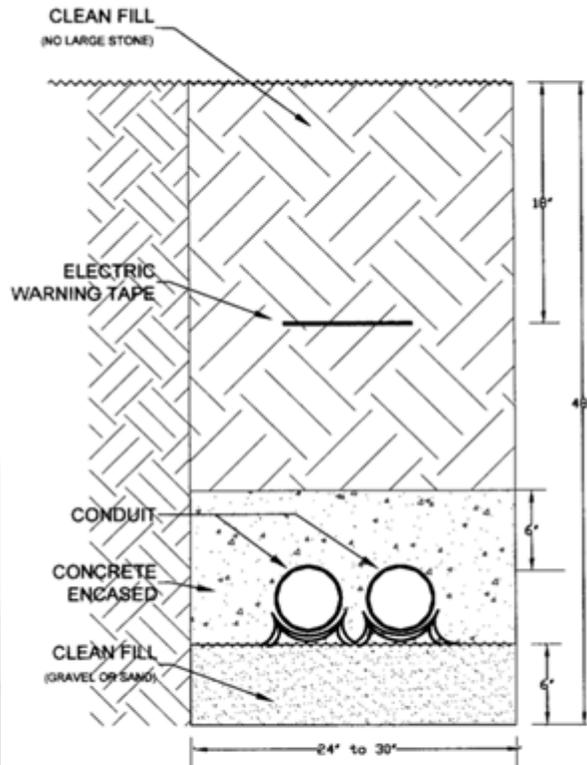
NOTES:

1. Meter bracket assembly shall be hot-dip galvanized after fabrication

**FIGURE 21**

WOOD POLE INSTALLATION  
 DETAIL OF METER SOCKET BRACKET

## PRIMARY TRENCH SPECIFICATION FOR UNDERGROUND CONSTRUCTION



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
2. **OWNERSHIP:** CONTRACTOR SHALL FURNISH TRENCH, BACKFILL, AND CONDUIT.
3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE ELECTRIC DIVISION. NO TRENCH SHALL BE BACKFILLED OR POURED WITH CONCRETE UNTIL INSPECTED BY THE ELECTRIC DIVISION.
4. **CONDUIT:** TYPICAL INSTALLATION SHOWN. CONDUIT TO BE 4" SCHEDULE 40 PVC ENCASED IN CONCRETE. SWEEPS TO BE RIGID STEEL 36" MIN RADIUS BENDS. PULL STRING TO BE INSTALLED BY THE CUSTOMER (2500 LB. MULETAPE).
5. **SAND/FILL:** PROVIDE AS SHOWN; ALL FILL BEING THOROUGHLY COMPACTED.

**NOTES:**  
 ANY VARIATION IN TRENCH SPECIFICATIONS MUST HAVE PRIOR APPROVAL OF THE TOWN OF DANVERS ENGINEERING DIVISION

EASEMENTS SHALL BE SECURED BY THE CONTRACTOR/OWNER.

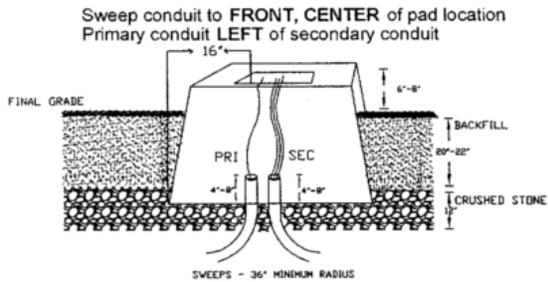
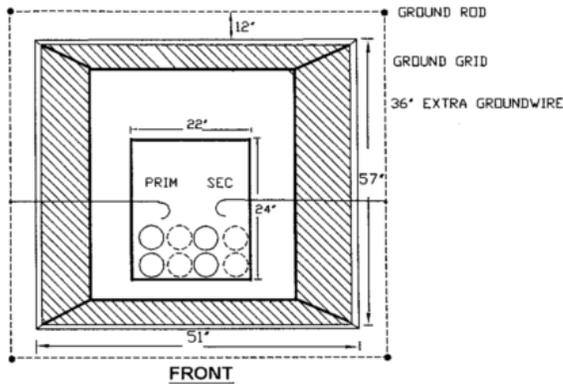
"DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

DANVERS ELECTRIC DIVISION			
TYPICAL TRENCH SPECIFICATION			
DRAWN BY	SCALE	DATE	DWG
CHECKED BY	NTS	9/20/06	SHEET 1 OF 1
specugtr.dwg		SHEET 1 OF 1	

**Figure 22**

### PRIMARY TRENCH SPECIFICATIONS

# SPECIFICATIONS FOR FIBERGLASS PAD



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
2. **OWNERSHIP:** CONTRACTOR SHALL FURNISH AND OWN GROUND GRID, CONDUITS AND GROUNDING WIRES.
3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE WIRE INSPECTOR AND ELECTRIC DIVISION. PLANS SHALL SHOW FIBERGLASS PAD, ALSO CONDUITS, LOCATION, TYPE, SIZE AND NUMBER.
4. **LOCATION / PROTECTION:** PAD LOCATION TO BE APPROVED BY ELECTRIC DEPT. THERE SHALL BE NO OBSTRUCTIONS WITHIN 36" OF THE REAR, 36" OF THE SIDES, AND 72" OF THE FRONT. IN AREAS OF VEHICULAR ACTIVITY, APPROVED BARRIERS SHALL BE INSTALLED, BY THE CUSTOMER, AROUND THE PAD FOR MECHANICAL PROTECTION OF THE TRANSFORMER.
5. **CONDUIT:** INSTALL AS SHOWN. PRIMARY CONDUIT TO BE 4" RIGID STEEL, GALVANIZED, UNLESS OTHERWISE APPROVED. SWEEPS TO BE RIGID STEEL 36" MIN RADIUS BENDS. TERMINATION OF CONDUITS SHALL BE LOCATED EXACTLY AS SHOWN IN DIAGRAM. PULL STRING INSTALLED BY CONTRACTOR (2500 LB. MULETAPE).
6. **GROUND GRID:** 1/0 STR. (7 STRANDS) BARE COPPER WIRE LOOP 12" BELOW PAD GRADE. BOND TO ALL EXPOSED METAL CONDUIT. LEAVE 36" WIRE ABOVE PAD AT TWO OPPOSITE POINTS IN THE CONDUIT OPENINGS, FOR GROUNDING OF THE TRANSFORMER. DRIVE FOUR (4) 3/4" BY 8" COPPERWELD GROUND RODS IN EACH CORNER OF THE PAD AS SHOWN, AND BOND TO GRID WIRE. ALL GROUND CONNECTIONS TO BE CAD WELD. GROUNDING BUSHINGS REQUIRED ON ALL METAL CONDUIT.  
 \* **GROUNDING INSTALLATION MUST BE APPROVED BY INSPECTOR\***
7. **BACK FILL:** PROVIDE AS SHOWN; ALL FILL BEING THOROUGHLY COMPACTED.
8. **CONDUCTORS:** SECONDARY CONDUCTORS AND CONNECTIONS INSTALLED BY THE CUSTOMER. MUST USE 3/4" HARDWARE, 2 WASHERS, 1 LOCK WASHER. INSPECTION, TESTING, AND FINAL TORQUE BY D.E.D.

"DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR

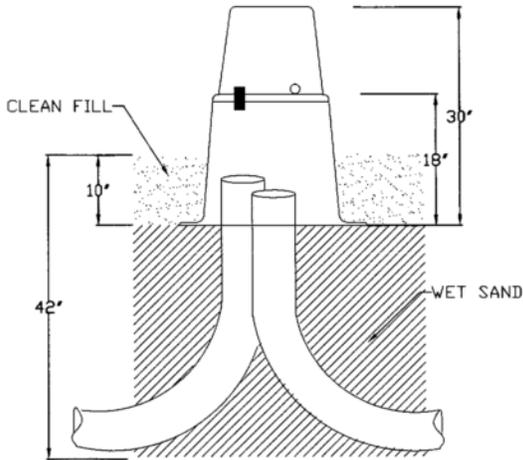
DANVERS ELECTRIC DIVISION		
5KV 1 PHASE FIBERGLASS PAD		
DRAWN: KK	SCALE:	DATE: 7/2002
CHECKED: CM	NTS	
pad spec 5kv FIBERGLASS-NEW.dwg		

## Figure 23

SPECIFICATIONS FOR FIBERGLASS PAD

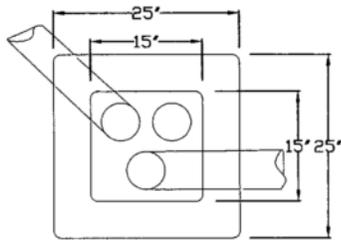
## SECONDARY PEDESTAL SPECIFICATIONS

FIG. 1



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
2. **OWNERSHIP:** ELECTRIC DIVISION SHALL FURNISH AND OWN PEDESTAL
3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE WIRE INSPECTOR AND ELECTRIC DIVISION. PLANS SHALL SHOW PEDESTALS LOCATED ON PROPERTY LINES
4. **CONDUIT:** TYPICAL INSTALLATION SHOWN. CONDUIT TO BE 4" SCHEDULE 40 PVC. CONDUIT UNDER ROADWAY TO BE SCHEDULE 40 PVC ENCASED IN CONCRETE, SCHEDULE 80 PVC, OR RIGID STEEL. USE 24" RADIUS BENDS.
5. **SAND/FILL:** PROVIDE AS SHOWN; THE FILL AND WET SAND BEING THOROUGHLY COMPACTED
6. **CONDUCTORS:** FROM TRANSFORMER TO PEDESTAL BY ELECTRIC DIVISION; FROM PEDESTAL TO METER BY CUSTOMER.

FIG. 2 (TOP VIEW)



**NOTES:**

ANY VARIATION IN SPECIFICATIONS MUST HAVE PRIOR APPROVAL OF THE TOWN OF DANVERS ENGINEERING DIVISION

EASEMENTS SHALL BE SECURED BY THE CONTRACTOR/OWNER.

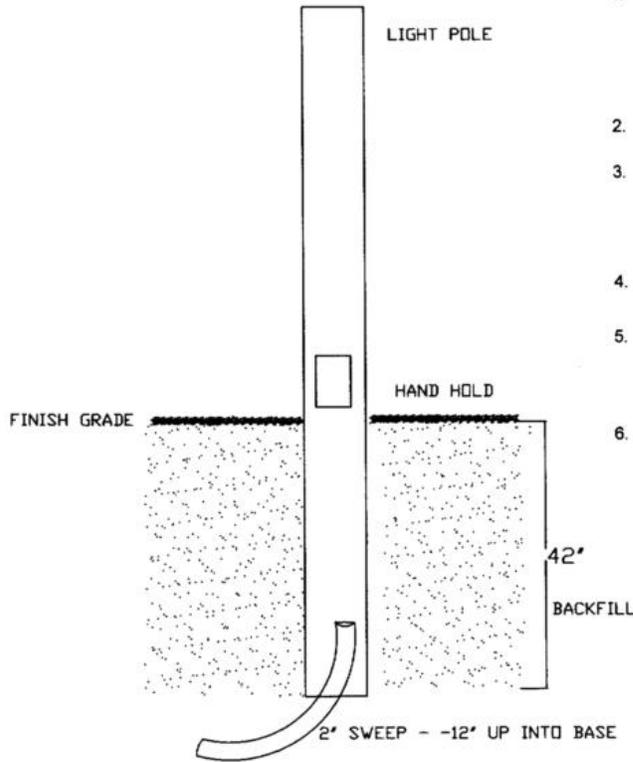
"DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

DANVERS ELECTRIC DIVISION			
PEDESTAL_SPEC.dwg			
DRAWN BY:	SCALE:	DATE:	
CHECKED BY:	NTS	8/3/03	
PEDESTAL_SPEC.dwg			

**Figure 24**

SECONDARY PEDESTAL SPECIFICATIONS

# LIGHT POLE INSTALLATION



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
2. **OWNERSHIP:** CONTRACTOR SHALL FURNISH CONDUIT
3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE WIRE INSPECTOR AND ELECTRIC DIVISION. PLANS SHALL SHOW LIGHT POLE, ALSO CONDUITS, LOCATION, TYPE, SIZE AND NUMBER.
4. **LOCATION:** LIGHT POLE LOCATION TO BE APPROVED BY ELECTRIC LIGHT
5. **CONDUIT:** INSTALL AS SHOWN. CONDUIT TO BE 2" SCH. 40 PVC, UNLESS OTHERWISE APPROVED. USE 36" RADIUS BENDS. TERMINATION OF CONDUITS SHALL BE LOCATED EXACTLY AS SHOWN IN FIGS. 1.
6. **BACK FILL:** PROVIDE AS SHOWN; ALL FILL BEING THOROUGHLY COMPACTED.

"DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR

DANVERS ELECTRIC DIVISION		
INSTALLATION OF LIGHT POLE		
DRAWN: CM	SCALE: NTS	DATE: 3/25/2002
CHECKED: BD		
light pole spec.dwg		SHEET 1 OF 1

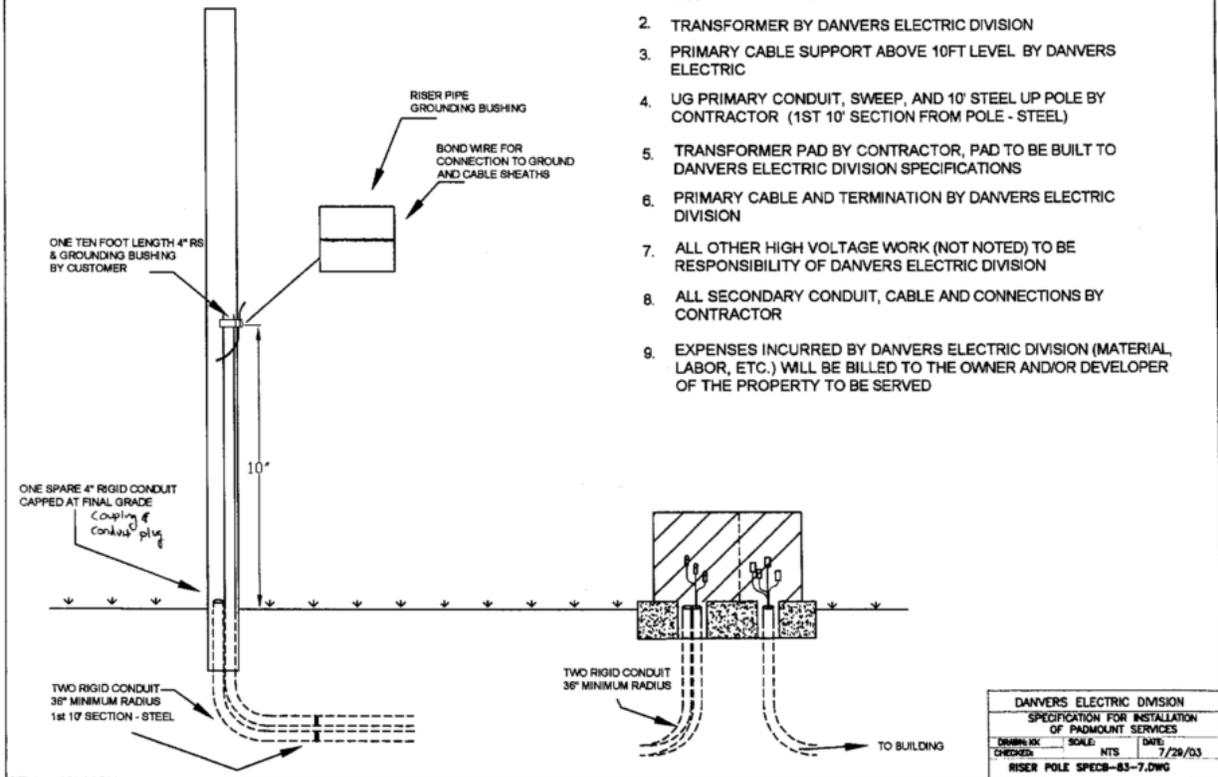
**Figure 25**

LIGHT POLE INSTALLATION

RISER POLE - SPECIFICATION FOR INSTALLATION OF PAD MOUNT SERVICES

NOTES:

1. RISER POLE AND TERMINATOR MOUNTING BRACKET BY DANVERS ELECTRIC DIVISION
2. TRANSFORMER BY DANVERS ELECTRIC DIVISION
3. PRIMARY CABLE SUPPORT ABOVE 10FT LEVEL BY DANVERS ELECTRIC
4. UG PRIMARY CONDUIT, SWEEP, AND 10' STEEL UP POLE BY CONTRACTOR (1ST 10' SECTION FROM POLE - STEEL)
5. TRANSFORMER PAD BY CONTRACTOR, PAD TO BE BUILT TO DANVERS ELECTRIC DIVISION SPECIFICATIONS
6. PRIMARY CABLE AND TERMINATION BY DANVERS ELECTRIC DIVISION
7. ALL OTHER HIGH VOLTAGE WORK (NOT NOTED) TO BE RESPONSIBILITY OF DANVERS ELECTRIC DIVISION
8. ALL SECONDARY CONDUIT, CABLE AND CONNECTIONS BY CONTRACTOR
9. EXPENSES INCURRED BY DANVERS ELECTRIC DIVISION (MATERIAL, LABOR, ETC.) WILL BE BILLED TO THE OWNER AND/OR DEVELOPER OF THE PROPERTY TO BE SERVED



DANVERS ELECTRIC DIVISION		
SPECIFICATION FOR INSTALLATION OF PADMOUNT SERVICES		
DRAWN BY	SCALE	DATE
CHECKED	NTS	7/26/03
RISER POLE SPEC-83-7.DWG		

Figure 26

RISER POLE - SPECIFICATION FOR INSTALLATION OF PADMOUNT SERVICES

FIGURE 1 - PLAN VIEW

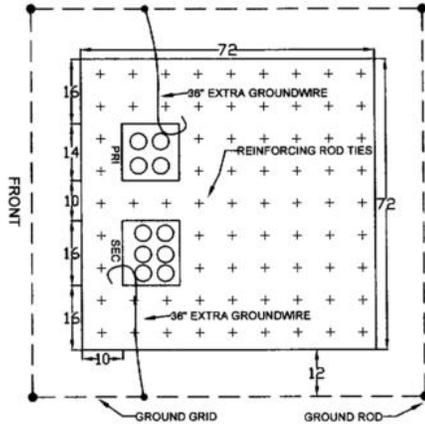
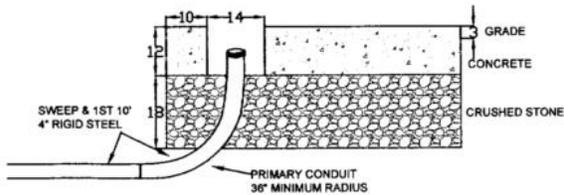


FIGURE 2



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
  2. **OWNERSHIP:** CONTRACTOR SHALL FURNISH AND OWN CONCRETE PAD, GROUND GRID, CONDUITS AND GROUNDING WIRES.
  3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE WIRE INSPECTOR AND ELECTRIC DIVISION. PLANS SHALL SHOW CONCRETE PAD, ALSO CONDUITS, LOCATION, TYPE, SIZE AND NUMBER.
  4. **LOCATION / PROTECTION:** PAD LOCATION TO BE APPROVED BY ELECTRIC DEPT. THERE SHALL BE NO OBSTRUCTIONS WITHIN 4' OF THE REAR, 4' OF THE SIDES, AND 12' OF THE FRONT. IN AREAS OF VEHICULAR ACTIVITY, APPROVED BARRIERS SHALL BE INSTALLED, BY THE CUSTOMER, AROUND THE PAD FOR MECHANICAL PROTECTION OF THE TRANSFORMER.
  5. **CONDUIT:** INSTALL AS SHOWN. CONDUIT TO BE 4" RIGID STEEL, GALVANIZED, UNLESS OTHERWISE APPROVED. USE 36" RADIUS BENDS. TERMINATION OF CONDUITS SHALL BE LOCATED EXACTLY AS SHOWN IN FIGS. 1 AND 2, SOLID OR DASHED, DEPENDING UPON THE NUMBER OF DUCTS. PULL STRING INSTALLED BY CONTRACTOR (2500 LB. MULETAPE).
  6. **GROUND GRID:** 1/0 STR. (7 STRANDS) BARE COPPER WIRE LOOP 12" BELOW PAD GRADE. BOND TO ALL EXPOSED METAL CONDUIT. LEAVE 36" WIRE ABOVE PAD AT TWO OPPOSITE POINTS IN THE CONDUIT OPENINGS, FOR GROUNDING OF THE TRANSFORMER. BOND TO ALL METAL CONDUIT USING GROUNDING BUSHINGS. DRIVE FOUR (4) 3/4" BY 8" COPPERWELD GROUND RODS IN EACH CORNER OF THE PAD AS SHOWN, AND BOND TO GRID WIRE.  
**\* GROUNDING INSTALLATION MUST BE APPROVED BY INSPECTOR \*  
 \*BEFORE CONCRETE PAD IS POURED\***
  7. **BACK FILL:** PROVIDE AS SHOWN. ALL FILL BEING THOROUGHLY COMPACTED.
  8. **CONCRETE PAD:** USE 3000 PSI CONCRETE. PAD SHALL BE FLAT AND LEVEL WITH 1" CHAMFERED EDGE. REINFORCE WITH 1/2" RE-RODS LOCATED AS SHOWN IN FIGS. 1 AND 2, TIED 8" ON CENTER. PAD MUST BE APPROVED BY INSPECTOR BEFORE POURING.
  9. **CONDUCTORS:** SECONDARY CONDUCTORS AND CONNECTIONS INSTALLED BY THE CUSTOMER. MUST USE 3/4" HARDWARE, 2 WASHERS, 1 LOCK WASHER. INSPECTION, TESTING, AND FINAL TORQUE BY D.E.D.
- "DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

DANVERS ELECTRIC DIVISION		
5 KV		
THREE PHASE TRANSFORMER 112-500KVA		
DESIGNED BY	SCALE:	DATE: 9/20/2006
CHECKED BY	NTS	
PAD SPEC 06EMERC.dwg		

Figure 26 -con't

5 kV Three Phase Transformer – 112-500 kVa

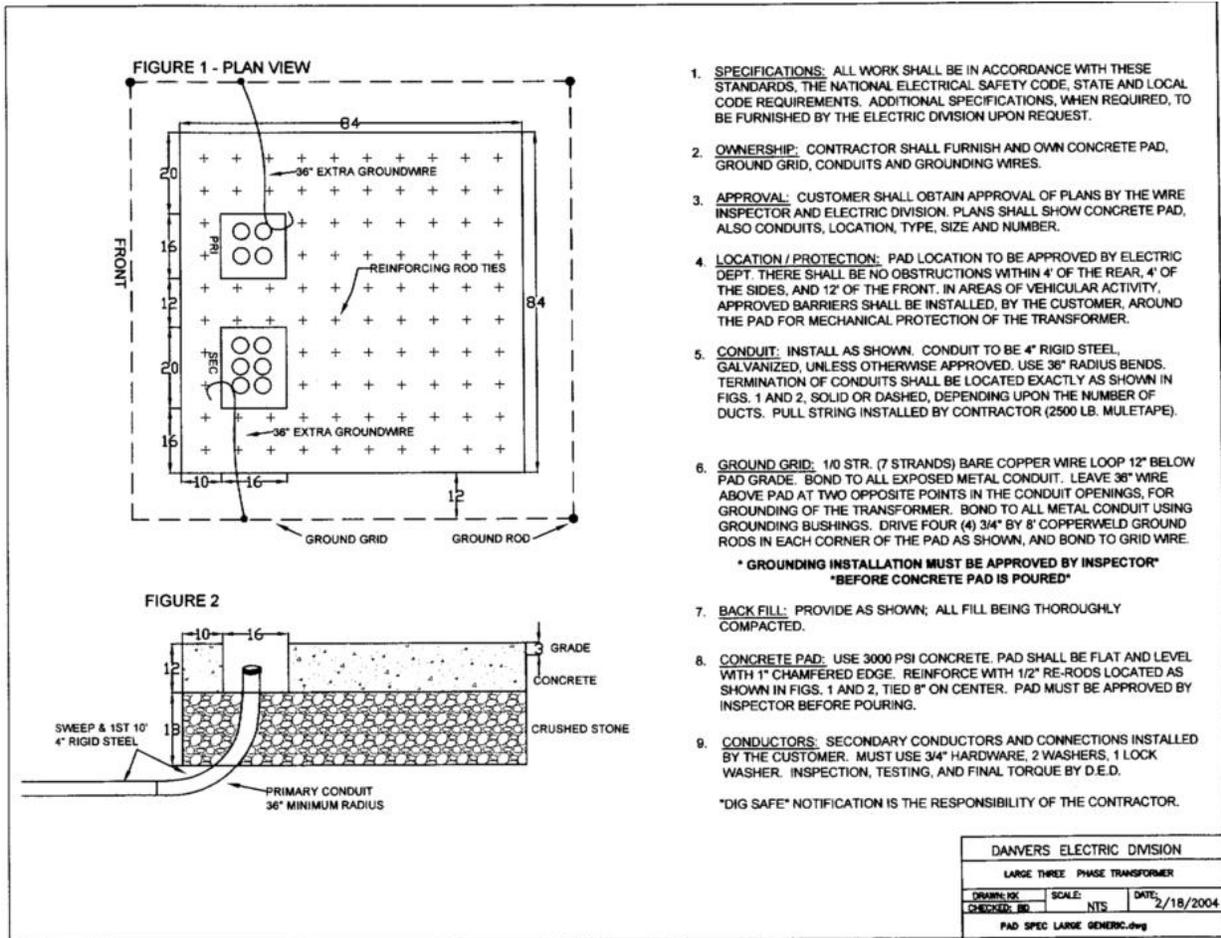


Figure 26 -cont

## Large Three Phase Transformer

FIGURE 1 - PLAN VIEW

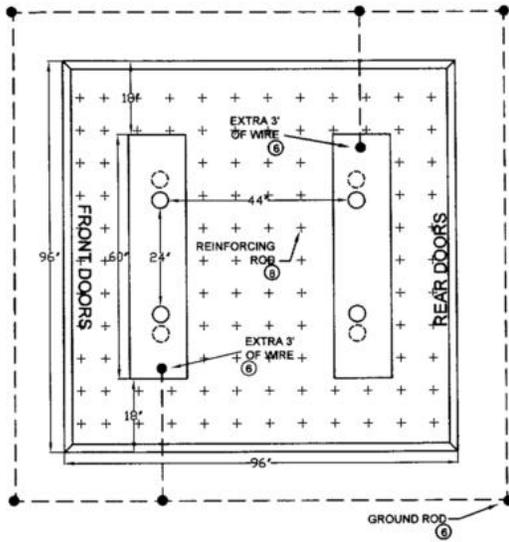
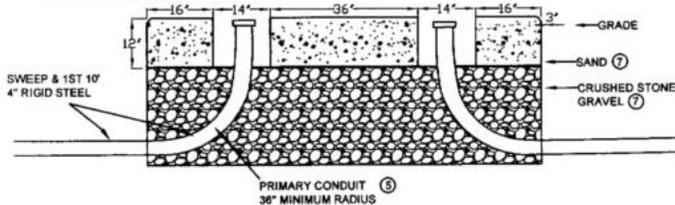


FIGURE 2 - SECTION



1. **SPECIFICATIONS:** ALL WORK SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE NATIONAL ELECTRICAL SAFETY CODE, STATE AND LOCAL CODE REQUIREMENTS. ADDITIONAL SPECIFICATIONS, WHEN REQUIRED, TO BE FURNISHED BY THE ELECTRIC DIVISION UPON REQUEST.
  2. **OWNERSHIP:** CONTRACTOR SHALL FURNISH AND OWN CONCRETE PAD, GROUND GRID, CONDUITS AND GROUNDING WIRES.
  3. **APPROVAL:** CUSTOMER SHALL OBTAIN APPROVAL OF PLANS BY THE WIRE INSPECTOR AND ELECTRIC DIVISION. PLANS SHALL SHOW CONCRETE PAD, ALSO CONDUITS, LOCATION, TYPE, SIZE AND NUMBER.
  4. **LOCATION / PROTECTION:** PAD LOCATION TO BE APPROVED BY ELECTRIC DIVISION. THERE SHALL BE NO OBSTRUCTIONS WITHIN 12' OF THE FRONT, 12' OF THE REAR, AND 4' OF THE SIDES. IN AREAS OF VEHICULAR ACTIVITY, APPROVED BARRIERS SHALL BE INSTALLED, BY THE CUSTOMER, AROUND THE PAD FOR MECHANICAL PROTECTION OF THE TRANSFORMER.
  5. **CONDUIT:** INSTALL AS SHOWN. CONDUIT TO BE 4" RIGID STEEL, GALVANIZED, UNLESS OTHERWISE APPROVED. USE 36" RADIUS BENDS. TERMINATION OF CONDUITS SHALL BE LOCATED EXACTLY AS SHOWN IN FIGS. 1 AND 2, SOLID OR DASHED, DEPENDING UPON THE NUMBER OF DUCTS. PULL STRING INSTALLED BY CONTRACTOR (2500 LB. MULETAPE).
  6. **GROUND GRID:** 1/0 STR. (7 STRANDS) BARE COPPER WIRE LOOP 12" BELOW PAD GRADE AND 12" FROM EDGE OF PAD. LEAVE 36" WIRE ABOVE PAD AT TWO OPPOSITE POINTS IN THE CONDUIT OPENINGS, FOR GROUNDING OF THE TRANSFORMER. BOND TO ALL METAL CONDUIT USING GROUNDING BUSHINGS. DRIVE FOUR (4) 3/4" BY 8" COPPERWELD GROUND RODS IN EACH CORNER OF THE PAD AS SHOWN, AND BOND TO GRID WIRE.  
**\* GROUNDING INSTALLATION MUST BE APPROVED BY INSPECTOR \*  
 \* BEFORE CONCRETE PAD IS POURED \***
  7. **GRAVEL / CRUSHED STONE:** PROVIDE AS SHOWN IN FIGURE 2; THE GRAVEL BEING COMPACTED OVER CRUSHED STONE.
  8. **CONCRETE PAD:** USE 3000 PSI CONCRETE. PAD SHALL BE FLAT AND LEVEL WITH 1" CHAMFERED EDGE. REINFORCE WITH 1/2" RE-RODS LOCATED AS SHOWN IN FIGS. 1 AND 2, TIED 8" ON CENTER. PAD MUST BE APPROVED BY INSPECTOR BEFORE POURING.
  9. **CONDUCTORS:** SECONDARY CONDUCTORS AND CONNECTIONS INSTALLED BY THE CUSTOMER. INSPECTION, TESTING, AND FINAL TORQUE BY D.E.D.
- "DIG SAFE" NOTIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

DANVERS ELECTRIC DIVISION		
23KV PADMOUNT SWITCHGEAR		
DRAWN BY:	SCALE:	DATE:
CHECKED: JD	NTS	9/20/2006
SWITCHGEAR-23KV.dwg		

Figure 26 -con't

## 23 kV Padmount Switchgear

