SECTION XV
DRAWINGS AND TABLES

FIGURE 12

POLE SERVICE

LEAVE THESE LEADS 36" MINIMUM LENGTH

1-Weatherhead service, entrance wiring.

1-Weatherhead customer service pole-stand, minimum 100 amp rating with 120 volt single phase utilization. Receptacle outlets: example, 15 or 20 amp must have approved ground fault circuit protection. #4 bare Cu grounding wire.

2-5/8"x 8' copper or galvanized ground rods with connections.

Minimum service current rating 100 amps

If load will not exceed 3000 watts, 2 wire service may be applied for with minimum conductor size #6 AWG Cu or equivalent.

Socket type meter installation

Customer equipment enclosure may be located on side of pole if more ground clearance is desired.

Ground wire #4 bare copper under protective cover.

Installation to be in accordance with the National Electrical Code.
METER SOCKET WIRING FOR UNDERGROUND SERVICE

Both entrance "Phase" conductors are looped and enter at the top of the line side lugs.

Grounded conductor (neutral)

5th terminal (see note)

Looping of conductor as shown minimizes damage to cable and stress on connections.

Note:

5th terminal will be provided for 120/208 volt service and must be grounded.

5th terminal will also be provided for 120/240 volt service where the 5th terminal is used for direct load control and will be grounded.
POLE SERVICE

LEAVE THESE LEADS 36" MINIMUM LENGTH

FURNISHED AND INSTALLED BY CUSTOMER

1- CLEVIS BOLT (3/8" X 10"), WASHER.
1- METER SOCKET.
1- POLE, CONSIST ELECTRIC CU. FOR PILE SIZE AND SETTING INFORMATION AND GUYING REQUIREMENTS.

1- WEATHERHEAD SERVICE ENTRANCE WIRING.

1- WEATHERPROOF CUSTOMER SERVICE RECEPTACLE. MINIMUM 100 AMP RATING WITH 120 VOLT SINGLE PHASE UTILIZATION RECEPTACLES OUTLETS. EXAMPLE: 10 OR 20 AMP.
MUST HAVE APPROVED GROUND FAULT CIRCUIT PROTECTION. 
#4 BARE CU. GROUND WIRE.

2- 3/8" X 8" COPPERVEND OR GALVANIZED GROUND RODS WITH CONNECTIONS.

MINIMUM SERVICE CURRENT RATING 100 AMPS

IF LOAD WILL NOT EXCEED 3000 WATTS, 2 WIRE SERVICE MAY BE APPLIED FOR WITH MINIMUM CONDUCTOR SIZE #6 AND CU OR EQUIVALENT.

SOCKET TYPE METER INSTALLATION

CUSTOMER EQUIPMENT ENCLOSURE MAY BE LOCATED ON SIDE OF POLE IF MORE GROUND CLEARANCE IS DESIRED.

GROUND WIRE #4 BARE COPPER UNDER PROTECTIVE COVER

INSTALLATION TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

NOTE:
USE ROCK FOR BACKFILL IF AVAILABLE, FILL WITH EARTH TAMPERED FREQUENTLY. UNIT PILE IS 8'-10".

2 GROUND RODS REQUIRED
SERVICE ENTRANCE TO RESIDENCE
OR SMALL COMMERCIAL BUILDING

STUDDING
WEATHERHEAD

LEAVE 36" OF SERVICE
CONDUCTORS FOR SERVICE DROP
CONNECTION BY COMPANY

GAIN
12" MIX

COMPANY'S SERVICE
DROP

SERVICE DROP ATTACHMENT
FURNISHED AND
INSTALLED BY CUSTOMER
ATTACHMENT TO BE CAPABLE OF
WITHSTANDING A HORIZONTAL
PULL OF 1,000 LBS.

SEE SECTION XV
PARAGRAPH 811 FOR
REQUIRED HEIGHT

CUSTOMER OWNED
SERVICE ENTRANCE CABLE
OR SERVICE ENTRANCE
CONDUCTORS IN APPROVED
CONDUIT

WEATHERPROOF FITTING

CENTER OF METER

METER SOCKET FURNISHED
AND SECURELY
INSTALLED BY CUSTOMER
IN A TRUE VERTICAL
POSITION (COMPANY TO
SUPPLY COMMERCIAL BY PASS
METER SOCKET)

6' MAX
5' MIN

INSTALLATION SHALL BE
IN ACCORDANCE WITH THE
NATIONAL ELECTRICAL CODE

GROUNDING TO BE AS REQUIRED IN FIGURE 29
### Section XV

#### Drawings and Tables

**Figure 19**

**Details of Riser and Service Attachment**

**Low Buildings - Ranch Houses**

<table>
<thead>
<tr>
<th>Triplex Conductor</th>
<th>Maximum Unbraced Length from Flashing to Conductor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rigid Al Conduit</td>
</tr>
<tr>
<td></td>
<td>2&quot; 2-1/2&quot; 3&quot; 3-1/2&quot; 4&quot;</td>
</tr>
<tr>
<td>No. 2</td>
<td>26' 48' 48' 24' 39' 48' 48'</td>
</tr>
<tr>
<td>No. 1/2</td>
<td>25' 48' 48' 18' 25' 25' 34'</td>
</tr>
</tbody>
</table>

- **Service Bracket**
  - Furnished by Customer
  - Guy or Brace if required

- **Approved Clamp**

- **Point of Solid Attachment to Roof**
  - With flashing plate or similar support

- **Concealed Riser**
  - Shall be capable of withstanding a horizontal pull of 1000 lbs.
  - Concealed risers are not acceptable

- **If roof overhang exceeds 48"**
  - The min dimension from the flashing to the lower conductor becomes 3 feet.
  - See NEC Article 230.

- **5' Max**
  - Center of meter

- **5' Min**
  - 15' (provides guy attachment)

- **Grounding**
  - To be as required in Fig. 29

(Height above ground)
UNDERGROUND SERVICE CONNECTIONS
FROM OVERHEAD LINES
SECT. 4, PARA. 18-26

ELECTRIC COMPANY POLE
NYSEG TO FURNISH PVC CONDUIT
FROM CUSTOMER'S CONDUIT

SECONDARY CLEVIS
UN POLLED WITH NO GROUND WIRE AVAILABLE CUSTOMER TO FURNISH AN EXC. GROUND WIRE TO REACH FROM GROUND CLAMP ON CONDUIT TO 17" ABOVE SECONDARY CLEVIS

SERVICE CONDUIT (MIN. 8" REQUIRED FROM GROUND LEVEL)

OPTIONAL METER LOCATION NYSEG WILL SPECIFY AN ACCEPTABLE LOCATION

GROUND CLAMP
PIPE STRAPS
TRANSFORMER GROUND WIRE

RIGID STEEL OR SCHEDULE 40 PVC CONDUIT
1 1/2" LENGTH, 18" MIN. BELOW GRADE

WARNING MARKER
INSULATED BUSHING
DIRECT WIRE
SERVICE CONDUCTORS

MINIMUM COVER REQUIREMENTS
24" DIRECT BURIED WIRE 18" IN CONDUIT

NOTE: IF SERVICE FROM RISER TO METER BOX IS COMPLETELY IN CONDUIT, DUCT SEAL OR A WEATHERHEAD IS NEEDED.
SECTION XV

DRAWINGS AND TABLES

FIGURE 20A

UNDERGROUND SERVICE CONNECTIONS
FROM OVERHEAD LINES
SECT. 4, PARA. 16-25

SEE FIG. 21

RIGID STEEL,
[PL. GP PVC,
SCHEDULE 80,
CONDUIT]

6' MAX
5' MIN

PAVEMENT

THE USE OF CONDUIT UNDER PAVEMENT
OR WALLS IS RECOMMENDED

LOOP GROUND AT
HOUSE (24" U.C.)

SLEEVE THROUGH WALL
OR RISE ABOVE GROUND

PANEL BOX

WHERE NECESSARY TO PREVENT PHYSICAL DAMAGE TO DIRECT BURIED CONDUCTORS FROM ROCKS, SLATE, ETC., OR FROM VEHICULAR TRAFFIC, ETC., DIRECT BURIED CONDUCTORS SHALL BE PROVIDED WITH SUPPLEMENTARY PROTECTION SUCH AS SAND, SAND AND SUITABLE RUNNING BOARDS, SUITABLE SLEEVES OR OTHER APPROVED MEANS.
SECTION XV

DRAWINGS AND TABLES

FIGURE 20A

UNDERGROUND SERVICE CONNECTIONS
FROM OVERHEAD LINES
SECT. 4, PARA. 18-26

WHERE NECESSARY TO PREVENT PHYSICAL DAMAGE TO DIRECT BURIED CONDUCTORS FROM ROCKS, SALT, ETC., OR FROM VEHICULAR TRAFFIC ETC., DIRECT BURIED CONDUCTORS SHALL BE PROVIDED WITH SUPPLEMENTARY PROTECTION SUCH AS SAND, SAND AND SUITABLE RUNNING BEARDS, SUITABLE SLEEVES OR OTHER APPROVED MEANS.
SECTION XV DRAWINGS AND TABLES

FIGURE 23A

UNDERGROUND SERVICE CONNECTION FOR RESIDENTIAL DEVELOPMENTS
SECT. 4, PARA. 34-36

SEE FIG. #11

RIGID STEEL, PVC OR CONDUIT
6' Max
5' Min

PAVEMENT

THE USE OF CONDUIT UNDER PAVEMENT OR WALKS IS RECOMMENDED

HIGH GROUND AT HOUSE (#4 C.U.)
SLEEVE THROUGH WALL OR RISE ABOVE GROUND

PEEL BOX

WHERE NECESSARY TO PREVENT PHYSICAL DAMAGE TO DIRECT BURIED CONDUCTORS FROM DRAIN SLATT, ETC., OR FROM VERTICAL TRAFFIC ETC., DIRECT BURIED CONDUCTORS SHALL BE PROVIDED WITH SUPPLEMENTARY PROTECTION SUCH AS SAND, SAND AND SUITABLE RUNNING BRANDS, SUITABLE SLEEVES OR OTHER APPROVED MEANS.
**Figure 24**

**Typical Meter Pedestal**

- Shown with typical service equipment for mobile home with direct wiring 100 amp, 150 amp or 200 amp.
- Meter installation only. Not for mobile home use.

- **Socket Location:**
  - 94" Max.
  - 6" Min.

- **Grounding Bushing:**
  - On metal conduit.

- **Conduit:**
  - Steel or PVC schedule 40.
  - See Fig. 35 for approved conduit material.

- **Molding over ground wires:**
  - 6" x 6" x 10" Min.

- **Pressure treated timber installed at 4'-6" depth.**

- **Additional Notes:**
  - Insulating bushings.
  - 6" Min. Separation.
  - Ground rod 3/6" x 8" Min.
  - Length copperweld or galvanized, install at angle not to exceed 45°.

*Specifications for electric installations.*
FIGURE 25

PRE-ASSEMBLED METER PEDESTAL
INSTALLATION FOR MOBILE HOMES, ETC.
120/240 VOLT SINGLE PHASE
(SEE PAGE 70 FOR SPEC)
SECTION XV  DRAWINGS AND TABLES

FIGURE 28

1. Customer's service pole and equipment within 30' of mobile home.

2. Customer's service pole more than 30' from mobile home, with customer's service equipment mounted on a pedestal.

3. Underground service from electric company-owned pole with meter and customer's service equipment mounted on a pedestal.
SECTION XV

TYPICAL METHODS OF SERVING A MOBILE HOME WITH DIRECT WIRING
MOBILE HOMES NOT IN A DEVELOPMENT OR PARK

1. CUSTOMER'S SERVICE POLE AND SERVICE EQUIPMENT WITH DIRECT WIRING TO MOBILE HOME

- SERVICE DROP FROM ELECTRIC CO.
- CUSTOMER OWNED POLE
- CUSTOMER'S SERVICE ENTRANCE CABLE
- CUSTOMER'S SERVICE EQUIPMENT - MUST BE WITHIN 30' OF MOBILE HOME
- 6' MAX 5' MIN
- METAL RACEWAY
- 1'8" WARNING RIBBON
- 10' DEPTH TO BE 18" IF SUPPLY CABLE IS IN CONDUIT OR 6" IF CABLE IS DIRECT BURIED
- FOUR (4) WIRE-SIZE NEC ARTICLE 250

2. CUSTOMER'S SERVICE POLE MORE THAN 30' FROM MOBILE HOME

- SERVICE DROP FROM ELECTRIC CO.
- CUSTOMER OWNED POLE
- CUSTOMER'S SERVICE ENTRANCE CABLE
- CUSTOMER'S SERVICE EQUIPMENT MOUNTED ON PEDESTAL
- 6' MAX 5' MIN
- 1'8" WARNING RIBBON
- 10' DEPTH TO BE 18" IF SUPPLY CABLE IS IN CONDUIT OR 6" IF CABLE IS DIRECT BURIED
- FOUR (4) WIRE-SIZE NEC ARTICLE 250
- THREE (3) WIRE SIZE NEC 250

3. DIRECT WIRED UNDERGROUND SERVICE FROM ELECTRIC CO. OWNED POLE WITH METER AND CUSTOMER'S SERVICE EQUIP MOUNTED ON A PEDESTAL

- SERVICE DROP FROM ELECTRIC CO.
- INSTALL PEDESTAL MIN. 13' FROM ELEC. CO. POLE
- 6' MAX 5' MIN
- 10' 1'8" WARNING RIBBON
- 19' DEPTH TO BE 18" IF SUPPLY CABLE IS IN CONDUIT OR 6" IF CABLE IS DIRECT BURIED
- FOUR (4) WIRE-SIZE NEC ARTICLE 250
- THREE (3) WIRE SIZE NEC 250
- SF 10.08 FOR UNDERGROUND SERVICE WIRING
- METER AND CUSTOMER'S SERVICE EQUIPMENT MOUNTED ON PEDESTAL
- SEE FIG. 24 FOR TYPICAL INSTALLATION

FIGURE 28A
**FIGURE 29**

**GROUNDING**

WHERE METAL WATER PIPE IS IN DIRECT CONTACT WITH EARTH FOR 15 FT. OR MORE AND ELECTRICALLY CONTINUOUS WITH THE NATIONAL ELECTRICAL CODE (SECTION 250):

- **METAL WATER PIPE**
- **WATER METER**

**METER SOCKET**

- **SERVICE ENTRANCE CONDUCTORS**
- **#4 COPPER GROUND WIRE REQUIRED**
- **1-5/8" X 8" COPPERWELD OR GALVANIZED GROUND ROD PER SUPPLEMENTARY GROUND**

WHERE THE WATER PIPE IS NOT IN DIRECT CONTACT WITH EARTH FOR 15 FT. OR MORE AND IS NOT ELECTRICALLY CONTINUOUS, SEE NATIONAL ELECTRIC CODE (SECTION 250):

- **WATER PIPE**
- **WATER METER**

**METER SOCKET**

- **SERVICE ENTRANCE CONDUCTORS**
- **#4 COPPER GROUND WIRE REQUIRED**
- **6" MINIMUM SEPARATION BETWEEN RODS**
- **2-5/8" X 8" COPPERWELD OR GALVANIZED GROUND RODS (6" APART)**

**METHODS FOR TERMINATING GROUNDS IN METER SOCKET**

- **#4 COPPER GROUND WIRE REQUIRED**
- **3/8" COPPERWELD OR GALVANIZED GROUND RODS**

APPLIES TO FIGURES 13, 14, 15, 16, 28, 29. COUPLING WHEN NO DISCONNECT IS USED.