# All member installations require inspection by MidSouth Electric Co-op <br> MidSouth Electric Co-op reserves the right to disconnect/refuse to connect service if representative considers the installation unsafe or incorrect. 

1. All materials to be provided and installed by the Member except:
1.A. Service drop (conductors, service grips, and service connectors) owned and installed by MidSouth Electric Co-op.
1.B. Meter Socket provided by MSEC and must be installed by Member.
2. Temporary meter pole provided and installed by Member. Pole must provide sufficient height for the service drop to meet minimum clearances per NESC code. Pole to be treated and a minimum of 4 " $\times 4$ " $\times 16 \mathrm{ft}$. unspliced or 5 " minimum diameter creosote pole. Temporary meter pole must be within maximum distance of 60 ' from MidSouth Electric Co-op pole. Reduced distance may be required for larger services to maintain minimum clearances. If minimum clearances cannot be met due to distance or conductor size, intermediate service poles will be required. Temporary meter poles may be reused as long as the material is identifiable and serviceable. MidSouth Electric Co-op has the final say on if a temporary meter pole is reusable.
3. Service entrance conductors provided and installed by Member. Conductors to be sized according to breaker size, with a minimum of \#6 Copper to be permitted. Conductors to extend outside weather head a minimum length of 18 " for connection to service drop as required by local ordinance. Conductors to be insulated and neutral conductors to be continuous through the Meter Socket to the main disconnect. All wires must be COPPER STRANDED with a minimum $90^{\circ} \mathrm{C}$ rated insulation.
4. Weather head and conduit provided and installed by the Member to protect service entrance conductors. Weather head must be within 12 " below the top of the pole. Conduit must be attached to the meter pole with two conduit straps minimum. Conduit materials must meet local, state, and federal codes at time of connection.**
5. Main fused disconnect or main breaker panel to be provided and installed by Member. Must be in outdoor/weather proof rated enclosure. If the main panel includes 6 or more circuits, a main disconnect must be installed.
6. Ground wire shall originate in main fused disconnect or main breaker panel, be minimum \#6 copper, bonded with a clamp to $5 / 8$ " $\times 8 \mathrm{ft}$ copper or copper-clad ground rod placed 2" below final ground grade/level.
7. Member shall not allow pole to be moved or tampered with as long as the MidSouth Electric Co-op's service wires are attached.


Top View


Figure 1A

| DRAWN DATE: | DRAWN BY: | DRAWING NAME: | SCALE: <br> $9-2-10 ~$ |
| :---: | :---: | :---: | :---: |
| EAC | MSM8-TEMP |  |  |
| REV DATE: |  |  |  |
| $12-14-21$ | JKB |  |  |

MidSouth
ELECTRIC CO-OP

## SINGLE -PHASE 120/240 OVERHEAD <br> METER INSTALLATION <br> (TEMPORARY)

## PERMANANT INSTALLATION SPECIFICATIONS

## All member installations require inspection by MidSouth Electric Co-op

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1. Service drops shall be free of possible contact with vegetation. Member must trim all vegetation initially and allow MidSouth Electric Co-op to trim vegetation within R.O.W in the future as needed.
2. For construction details and notes please refer to drawing name MS-OMP.
3. Standard.
A. Pole minimum is $23^{\prime}$ set $5^{\prime}$ in ground.
B. Point of attachment minimum is $16.5^{\prime}$ above final grade.
C. Clearance minimum is 15.5 'at worst sag.
4. Only with approval from MidSouth Electric Co-op before purchase and installation. If the Traffic Area is physically restricted so that only pedestrians and lawn mowers can pass.
A. Pole minimum is 18 ' set 4 ' in ground.
B. Point of attachment to be a minimum of $14^{\prime}$ above final grade.
C. Clearance minimum is $12.5^{\prime}$ at worst sag.

| , | OVERHEAD METER POLE CLEARANCE | DRAWN DATE: <br> $6-15-07$ <br> REV DATE: <br> $12-14-21$ | DRAWN BYY: <br> GBY: <br> REEVY: <br> JKB | MS-OMPC | ${ }_{\text {chen }}^{\text {S }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7625 Hwy 6 \| P.O. Box 970 | Navasota, Texas 77868 | |936) 825 -5100 |  | www.midsouthelectric.com |  |  |  |

# All member installations require inspection by MidSouth Electric Co-op <br> MidSouth Electric Co-op reserves the right to disconnect/refuse to connect service if representative considers the installation unsafe or incorrect. 


A. Meter pole must be within maximum distance of 100 from MidSouth Electric Co-op pole. Reduced distance may be required for larger services to maintain minimum clearances. If minimum clearances cannot be met due to distance or conductor size additional intermediate service poles will be required.
B. Materials to be furnished by member (Meter socket to be furnished by MidSouth Electric Co-op), all equipment to be installed and maintained by member (except meter and service connectors).
C. The pole shall be round, Penta treated or Creosote pressure treated, with a minimum diameter of 6 inches at the pole top. Overall length as detailed in the Overhead Meter Pole Clearance (MS-OMPC) drawing, depending on necessary clearances.
D. Service entrance weather-head shall be mounted within top 12 " of pole.
E. Point of attachment to be installed by MidSouth Electric Co-op within top 12" of pole, regardless of pole height (Preferred location being 6" below top of pole).
F. Service entrance wires must extend 18 " from the weather-head. Neutral conductor must be CONTINUOUS WITHOUT SPLICES TO MAIN BREAKER BOX. All wires must be copper stranded with a minimum $90^{\circ} \mathrm{C}$ rated insulation. (See CONDUCTOR INSTALLATION SPECIFICATIONS Table)
G. Riser shall be METAL conduit (rigid or EMT) - sized for wire (See CONDUCTOR INSTALLATION SPECIFICATIONS Table) supported with properly sized conduit straps not more than 5 feet apart.
H. Center meter socket $4.5^{\prime}$ to $5.5^{\prime}$ above final ground grade/level. Neutral must be CONTINUOUS WITHOUT SPLICES FROM MAIN BREAKER TO WEATHER HEAD. Meter socket to be furnished by MidSouth Electric Co-op and available for pick up at local office.
I. Use threaded nipple and plastic protective bushing, install lock nuts, may also use grounded bushings.
J. Weatherproof breaker box with main breaker to be mounted on outer wall 3 " below or adjacent to meter socket with 3 ' minimum clearance in front. Neutral must be CONTINUOUS WITHOUT SPLICES FROM MAIN BREAKER TO WEATHER HEAD. House panel may be placed below or adjacent to main breaker or inside house.
K. "Section 250.104 (C) requires exposed metal building framework that is not intentionally or inherently grounded to be bonded to the service equipment or grounding electrode system. This requirement applies to all metal framework, not only steel framework." (2008 NEC Handbook, Section 250.104(C)) A fourth wire shall be required for a metallic structures which will bond the service wire from the breaker box to the steel frame of structure.
L. Ground wire shall originate in main fused disconnect or main breaker panel, be minimum \#6 copper, bonded with a clamp to $5 / 8$ " x 8 ft copper or copper-clad ground rod placed 2" below final ground grade/level.
M. All underground wires shall be installed in Schedule 40 gray electrical P.V.C. conduit and buried in ground, a recommended minimum 36 " deep, with joints glued.

CONDUCTOR INSTALLATION SPECIFICATIONS
Table based on: NEC 310.15(B)(7)

| Max Ampacity | Min Conduit Size | Min Wire Size (Single) | Min Wire Size (Parallel) |
| :---: | :---: | :---: | :---: |
| 100 Amps | $1.5^{\prime \prime}$ | \#4 copper | - |
| 150 Amps | $2^{\prime \prime}$ | $\# 1 / 0$ copper | - |
| 200 Amps | $2 "$ | $\# 2 / 0$ copper | - |
| 320 Amps | $3^{\prime \prime}$ | $\# 300$ copper | \#2/0 copper |
| 400 Amps | $3^{\prime \prime}$ | $\# 500$ copper | \#4/0 copper |
| Conductor shall be stranded wire with minimum $90^{\circ} \mathrm{C}$ rated insulation. On services 200 amps and <br> larger the neutral may be reduced one wire size. Must use weakest link (750c). |  |  |  |




## PRIMARY CONSTRUCTION NOTES

1. Before construction starts, Member shall meet with a MidSouth Electric Co-op Representative.
2. Contractor/Member must call to locate all utilities (811) prior to commencement of construction.
3. Primary facilities that are to be installed by Member will be to MidSouth Electric Co-op specifications and requires inspection by a MidSouth Electric Co-op Representative
4. All underground conduit and exposed conduit for primary runs shall be gray/UV resistant schedule 40 P.V.C. conduit or better, unless otherwise noted.**
5. Primary conduit is to be installed in a trench 5 ft minimum depth to top of conduit at time of inspection.
6. Primary conduit shall have at least 2 ft of dirt cover (containing no rocks larger than the conduit) prior to placing a 6 " wide RED "CAUTION" TAPE, by tying the tape around the conduit in the trench and stretching one CONTINUOUS run of tape and tying the tape to the conduit at the other end of the trench. RED "CAUTION" TAPE available at local offices.
7. Pull string through all conduit runs. Caps shall be placed at both ends of conduit with pull string hanging out.
8. Final backfilling can then be placed. All sections of trenches shall have at least 2 ft and at most a 4 ft section at each end and at midpoint of trench exposed for inspection.
9. Member shall install transformer sleeve(pad) to Cooperative specifications (See MSUM1-5C for details)
10. Soil around all pad-mount transformers, junction boxes and pull boxes to be mechanically compacted to $95 \%$ standard density within a ten foot radius of concrete/fiberglass pad.

## SECONDARY CONSTRUCTION NOTES (Transformer to Meter)

1. Before construction starts, Member shall meet with a MidSouth Electric Co-op Representative.
2. Contractor/Member must call to locate all utilities (811) prior to commencement of construction.
3. Secondary facilities that are to be installed by Member will be to MidSouth Electric Co-op specifications and requires inspection by a MidSouth Electric Co-op Representative.
4. All underground conduit and exposed conduit for secondary runs shall be gray/UV resistant schedule 40 P.V.C. conduit or better, unless otherwise noted.**
5. Secondary conduit is to be installed in a trench 3 ft minimum depth to top of conduit at time of inspection.
6. Secondary conduit shall have at least 1 ft of dirt cover (containing no rocks larger than the conduit) prior to placing a 6 " wide RED "CAUTION" TAPE, by tying the tape around the conduit in the trench and stretching one CONTINUOUS run of tape and tying the tape to the conduit at the other end of the trench. RED "CAUTION" TAPE available at local offices.
7. Pull string through all conduit runs. Caps shall be placed at both ends of conduit with pull string hanging out.
8. Final backfilling can then be placed. All sections of trenches shall have at least 2 ft and at most a 4 ft section at each end and at midpoint of trench exposed for inspection.
9. Meter socket on the outside of the house shall be between 4.5 ft and 5.5 ft from center of socket to final ground grade.
10. All underground meter sockets shall be obtained from MidSouth Electric Co-op. Facing the meter socket, the Member shall install the conduit connecting to the main disconnect in the right-hand side knockouts, and the conduit from the transformer into the left-hand side knockout.
11. Weatherproof main disconnect shall be located outside below or adjacent to meter socket, with minimum $3 f t$ unobstructed clearance in front. House panel may be located below or adjacent to main disconnect or inside building. Weatherproof main disconnect shall be within 3 ft of meter socket.
12. Members ground wire shall be minimum \#6 copper. All other conductors must be sized according to main breaker size (CONDUCTOR INSTALLATION SPECIFICATIONS Table).
13. "Section 250.104 (C) requires exposed metal building framework that is not intentionally or inherently grounded to be bonded to the service equipment or grounding electrode system. This requirement applies to all metal framework, not only steel framework." (2008 NEC Handbook, Section 250.104(C))
**City of Conroe requires schedule 80 for any exposed conduit.

|  | UNDERGROUND METER PRIMARY AND SECONDARY CONSTRUCTION NOTES | DRAWN DATE: <br> 10-17-03 | DRAWN BY: EAC | MS-UCN | $\begin{aligned} & \text { SCALE: } \\ & \text { N.T.S. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { REV DATE: } \\ & \hline 12-14-21 \\ & \hline \end{aligned}$ | $\begin{array}{\|r\|} \hline \text { REV BY: } \\ \text { JKB } \end{array}$ |  |  |
|  |  | www.midsouthelectric.com |  |  |  |
| 7625 Hwy 6 \| P.O. Box 970 | Navasota, Texas 77868 | (936) 825-5100 |  |  |  |  |  |

All member installations require inspection by MidSouth Electric Co-op Considers the installation unsafe or incorrect.

1. MEMBERS MUST USE MID-SOUTH PROVIDED METER SOCKET FOR METER INSTALLATIONS THAT CAN BE PICKED UP
AT ALL LOCAL OFFICES. Required red "CAUTION" tape is also available at local offices.
2. Member's service wire from meter can to main disconnect must be connected to the bottom right set of meter lugs
in meter socket.
3. All conduit elbows must be Schedule 40 gray U.V. Resistant P.V.C., with a 36 " radius. Conduit must be Schedule 40 gray U.V. Resistant P.V.C.: b. For Meter to House/Building recommended 3" minimum.
4. Bury conduit:
a. For Meter to Transformer required minimum of 3 ft below final ground grade/level.
b. For Meter to House/Building recommended 3 ft below final ground grade/level.
5. $5 / 8^{\prime \prime} \times 8^{\prime}$ copper or copper clad ground rod driven 2" below final ground grade/level




| CONDUCTOR INSTALLATION SPECIFICATIONS |  |
| :---: | :---: |
| Conductor shall be <br> rated insulation and sized as follows: $90^{\circ} \mathrm{C}$ |  |
| Min. wire size | Ampacity |
| \#4 copper | 100 amps max. |
| \#2/0 copper | 200 amps max. |
| \#300 copper | 320 amps max. |
| \#500 copper | 400 amps max. |
| On services 200 amps and larger <br> the neutral may be reduced one <br> wire size. |  |
|  |  |



Meter on Left hand side of main
disconnect. Structure consist of two
treated 3"x5"x8' landscape timber or
similar material and three treated 2"x6"
cut to length.
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1. MEMBER MAY INSTALL OR CONTRACT
All member installations require inspection by MidSouth Electric Co-op
serves the right to disconnect/refuse to connect service if representative
considers the installation unsafe or incorrect.
MEMBER INSTALLED AND OWNED
ALL CONDUIT SIZES AND DEPTHS BETWEEN SERVICE ENTRANCE AND METER PEDESTALARE APPLICABLE RULES, REGULATIONS AND CODES 2. 3 " CONDUIT MINIMUM 3. 36 " RADIUS MINIMUM CONDUIT SWEEPS 5. 1 FT ABOVE CONDUIT, RED "CAUTION" TAPE 6. $5 / 8$ " $\times 8$ FT COPPER OR COPPER CLAD GROUND ROD DRIVEN 2" BELOW FINAL GROUND
GRADE/LEVEL
 DETAILS
MIDSOUTH ELECTRIC CO-OP OWNED PRIMARY MIDSOUTH ELECTRIC CO-OP OWNED SECONDARY MEMBER HAS OPIION 10 INSTALL CONDUI

> MIDSOUTH ELECTRIC CO-OP WILL INSTALL, IF PEDESTAL IS WITHIN 20 FT OF TRANSFORMER OTHERWISE MEMBER MUST INSTALL
2. IF EXISTING TRANSFORMER - STOP TRENCH 3 FT
FROM TRANSFORMER EDGE
3" CONDUIT MINIMUM
 EXCEPT ASNOTED
5. 3 FT MINIMUM DEPTH

MIDSOUTH ELECTRIC CO-OP TO INSTALL
8. ALL METER PEDESTALS SHOULD BE CONNECTED
BY MEMBER TO SERVE AS PERMANENT METER LOCATION WHEN READY. PEDESTAL SUPPLIED
WITH EITHER (1) 200A OR (2)200A MAIN
BREAKER(S) AND 20A GFI PLUG PRE-WIRED.
9. $5 / 8$ " $\times 8$ FT COPPER OR COPPER CLAD GROUND ROD DRIVEN 2" BELOW FINAL GROUND
GRADE/LEVEL
GRADE/LEVEL
10. SEE CONSTRUCTION NOTES FOR TRENCHING
DETAILS

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FT
MEMBER MAY INSTALL OR CONTRACT
MIDSOUTH ELECTRIC CO-OP TO INSTALL 2. IF EXISTING TRANSFORMER - STOP TRENCH 3 FT
FROM TRANSFORMER EDGE 3. 2 " CONDUIT MINIMUM
SdヨヨMS LInONOJ WกWINIW SnIavy "9ع $\dagger$ 5. 5 FT MINIMUM DEPTH
 IF FIBERGLASS GROUND SLEEVE USED, TO BE
INSTALLED BY MEMBER MUST BE PRIOR TO INSPECTION SEE MS-032-1 FOR INSTALLATION
DETAILS

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Notes:

1. Excavate the hole to the 10 " ground sleeve burial depth.
2. Compact the soil.
3. Place the ground sleeve into the hole.
4. Level the ground sleeve in all directions.
5. Back-fill with loose earth material.
a. Do not fill in interior of ground sleeve
b. Do not back-fill with large rocks next to the ground sleeve.
6. Pack the back-fill material by foot tamping, no machine tamping.


FRONT

|  | 14.4kV-7.2kV PRIMARY INSTALLATION OF NORDIC PAD FIBERGLASS | DRAWN DATE: <br> $3-02-04$ | $\begin{gathered} \hline \text { DRAWN BY: } \\ \text { GBY } \\ \hline \end{gathered}$ | MS-032 | $\begin{aligned} & \hline \text { SCALE: } \\ & \text { N.T.S. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - 0 U14 |  | $\begin{array}{\|c\|} \hline \text { REV DATE: } \\ 12-14-21 \\ \hline \end{array}$ | JKB |  |  |
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