

**Notes**

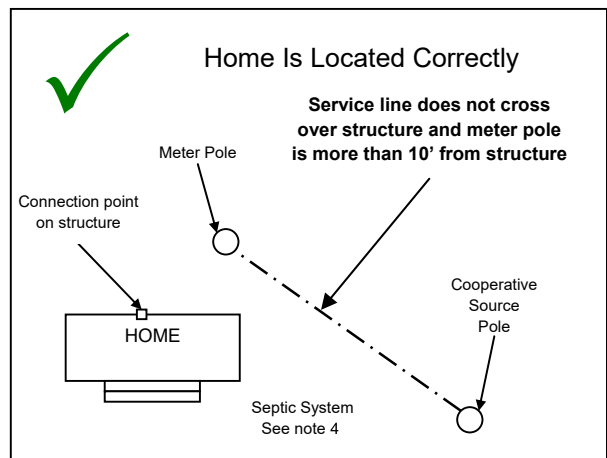
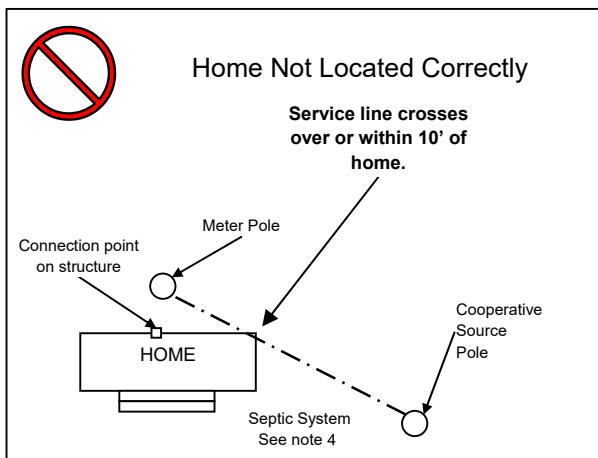
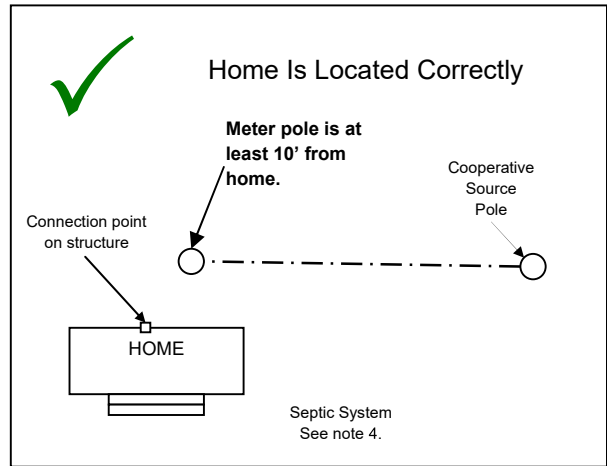
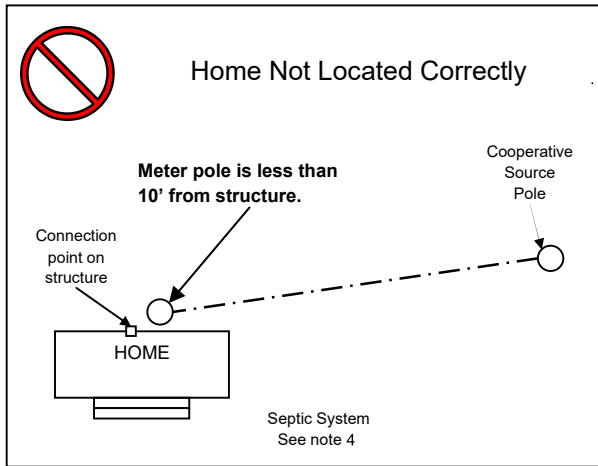
1. Member provides and installs the service entrance conductors, conduits, weatherhead, meter enclosure, service disconnect switch, ground rod and wire, and all related materials. All equipment and conduit connections shall be raintight. Any receptacles shall be weatherproof and GFCI. All work shall comply with Cooperative standards, the National Electrical Code, and authorities having jurisdiction.
2. Cooperative provides and installs the meter pole, meter, service drop attachment and conductors, and makes connections at the weatherhead. At member's request, Cooperative will assist with mounting service assembly on pole.
3. This service shall be installed at a location mutually agreed upon by the member and the Cooperative. The location should be immediately adjacent to a roadway or drive which is accessible at all times to Cooperative vehicles without having to cross yards, fields, ditches, or areas subject to flooding or irrigation.
4. Only the meter enclosure and service disconnect switch may be mounted on the Cooperative's pole. Control panels or other member equipment must be mounted on a separate structure provided by the member
5. 36" of conductor shall extend out of weatherhead. Cooperative will mount service assembly at member's request. Neutral may be bare, or insulated and marked with white tape at both ends.
6. Meter and disconnect enclosures must be grounded and bonded together using special means per NEC 250.92.

**CALL 72 HOURS BEFORE YOU DIG – Dial 811**  
**It shall be the member's responsibility to stay clear of all underground facilities.**

**NOTICE**

This drawing illustrates NREC requirements only, and is not intended to be a comprehensive guide for the installation of an electrical service. To insure a safe, quality installation that complies with the National Electrical Code and local code requirements, the Cooperative recommends that all electrical work be done by a qualified, licensed electrical contractor.  
*\*Service must be inspected by an electrical inspector prior to service connection. NREC reserves the right to not connect a service service it deems unsafe.*

Single Phase Meter on Pole  
 Underground Load Connection  
 Single Phase Service Up to 320A  
 January 2019  
 NOT TO SCALE

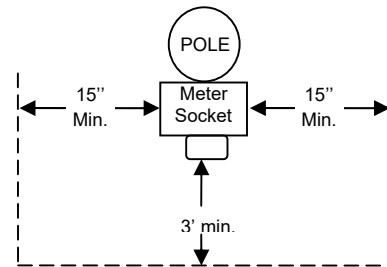


**Notes:**

1. Member's facilities shall comply with Cooperative Standards, the NEC, and authorities having jurisdiction.
2. Minimum required meter pole clearances:
  - a. Sides of mobile home or other building \_\_\_\_\_ 10'
  - b. Any direction from gas meter \_\_\_\_\_ 3'
  - c. Any direction from LP-Gas storage containers \_\_\_\_\_ 10'
3. No other attachments such as member-owned lighting, basketball goals, satellite dishes, etc. shall be allowed on meter pole.
4. The meter pole shall be located to allow access for Cooperative's heavy trucks without crossing the septic lines, tanks, or lateral field. The member is responsible for marking the location of the septic system to avoid damage from Cooperative vehicles.

**Meter Clearance from Fences, Shrubs, or Other Obstructions**

See notes for other required clearances.



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**Single Phase Meter on Pole**  
**Underground Load Connection**

Single Phase Service Up to 320A

January 2019

NOT TO SCALE



**Northwestern Rural Electric Co-operative Association, Inc.**

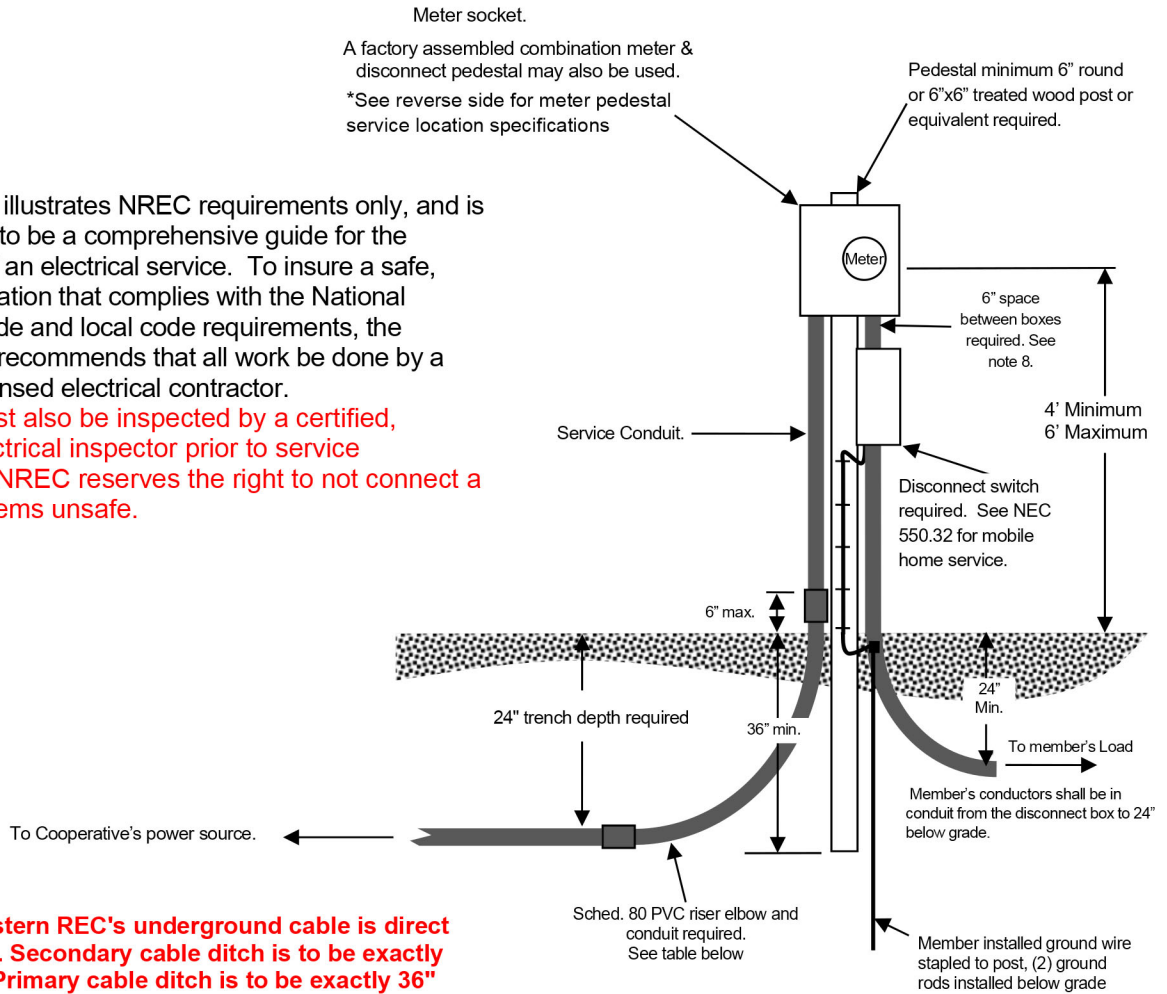
A Touchstone Energy\* Cooperative

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**\*Service must also be inspected by a certified, licensed electrical inspector prior to service connection. NREC reserves the right to not connect a service it deems unsafe.**

**\*\*Northwestern REC's underground cable is direct bury cable. Secondary cable ditch is to be exactly 24" deep. Primary cable ditch is to be exactly 36" deep. It is critical that these ditch requirements are met for safety and serviceability of your electric service. Failure to meet these specification may result in added cost or delay of service installation.**



**Notes**

1. All equipment and conduit connections shall be rain tight. Any receptacles shall be weatherproof and GFCI. All work shall comply with Cooperative standards, the National Electrical Code, and authorities having jurisdiction.
2. Cooperative provides and installs the meter and service lateral conductors from NREC transformer or secondary pedestal to the meter socket.
3. This service shall be installed at a location mutually agreed upon by the member and the Cooperative.
4. If the member installs a conduit system, 3" conduit or larger and a pull-line in required.
5. Above ground conduits and shall be electrical grade.
6. Consult the Cooperative for service rated over 320A.
7. Meter and disconnect enclosures must be grounded and bonded together using special means per NEC 250.92.

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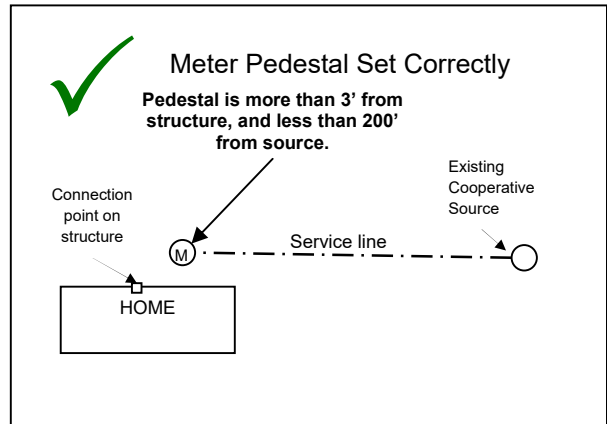
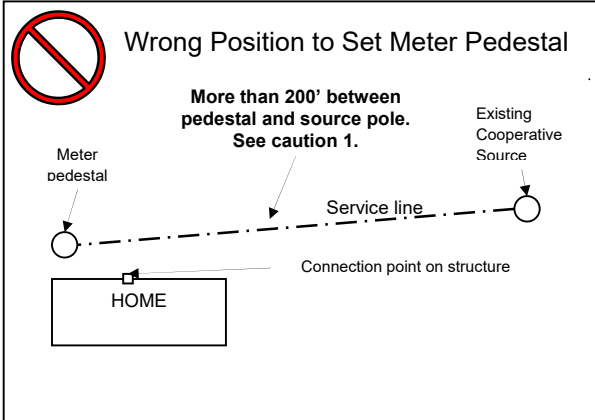
Meter Pedestal  
Single Phase Meter Up to 320A

January 2019  
NOT TO SCALE

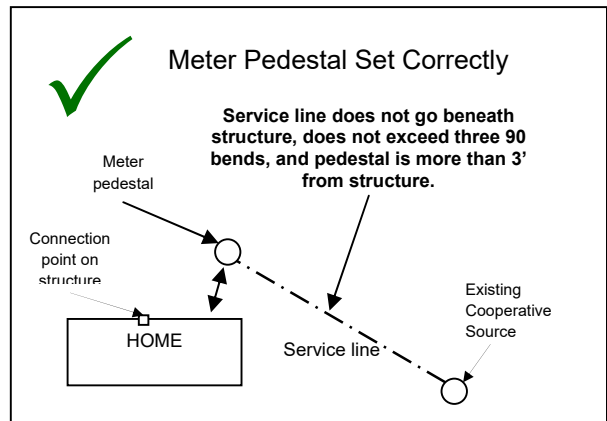
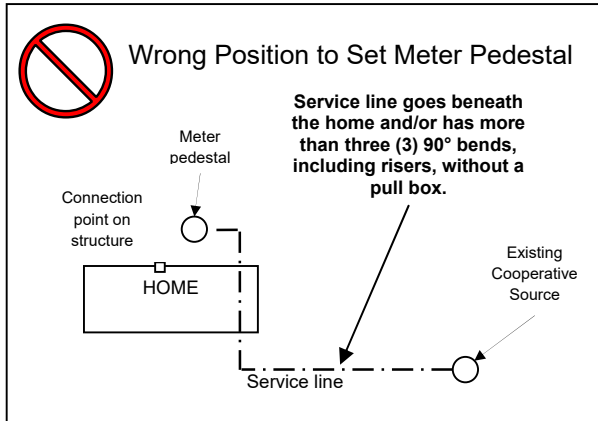


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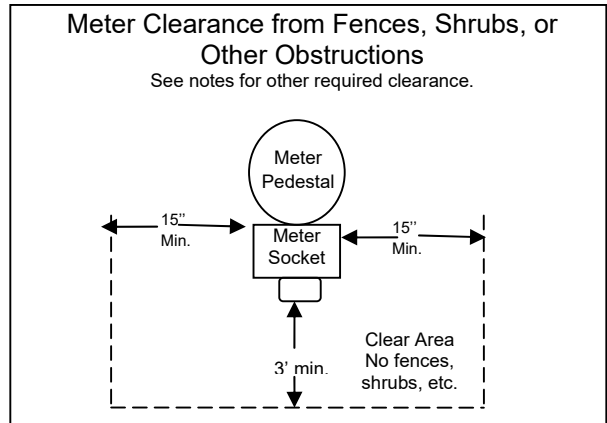


**CAUTION 1:** Maximum service length is 200'. For longer lengths, consult with the Cooperative.



**Notes:**

1. Member's facilities shall comply with Cooperative Standards, the NEC, and authorities having jurisdiction.
2. Minimum required meter pedestal clearances:
  - a. Sides of home or other building \_\_\_\_\_ 3'
  - b. Sides or back of pad-mount transformer \_\_\_\_\_ 3'
  - c. Front (lock side) of pad-mount transformer \_\_\_\_\_ 10'
  - d. Any direction from secondary pedestal \_\_\_\_\_ 3'
  - e. Any direction from Cooperative pole \_\_\_\_\_ 10'
  - f. Any direction from gas meter \_\_\_\_\_ 3'
  - g. Any direction from LP-Gas storage containers \_\_\_\_\_ 10'
3. The member shall contact the Cooperative prior to the installation of the service conduit system.
4. Cooperative owned or maintained underground service shall not be installed beneath a mobile home or any other structure.



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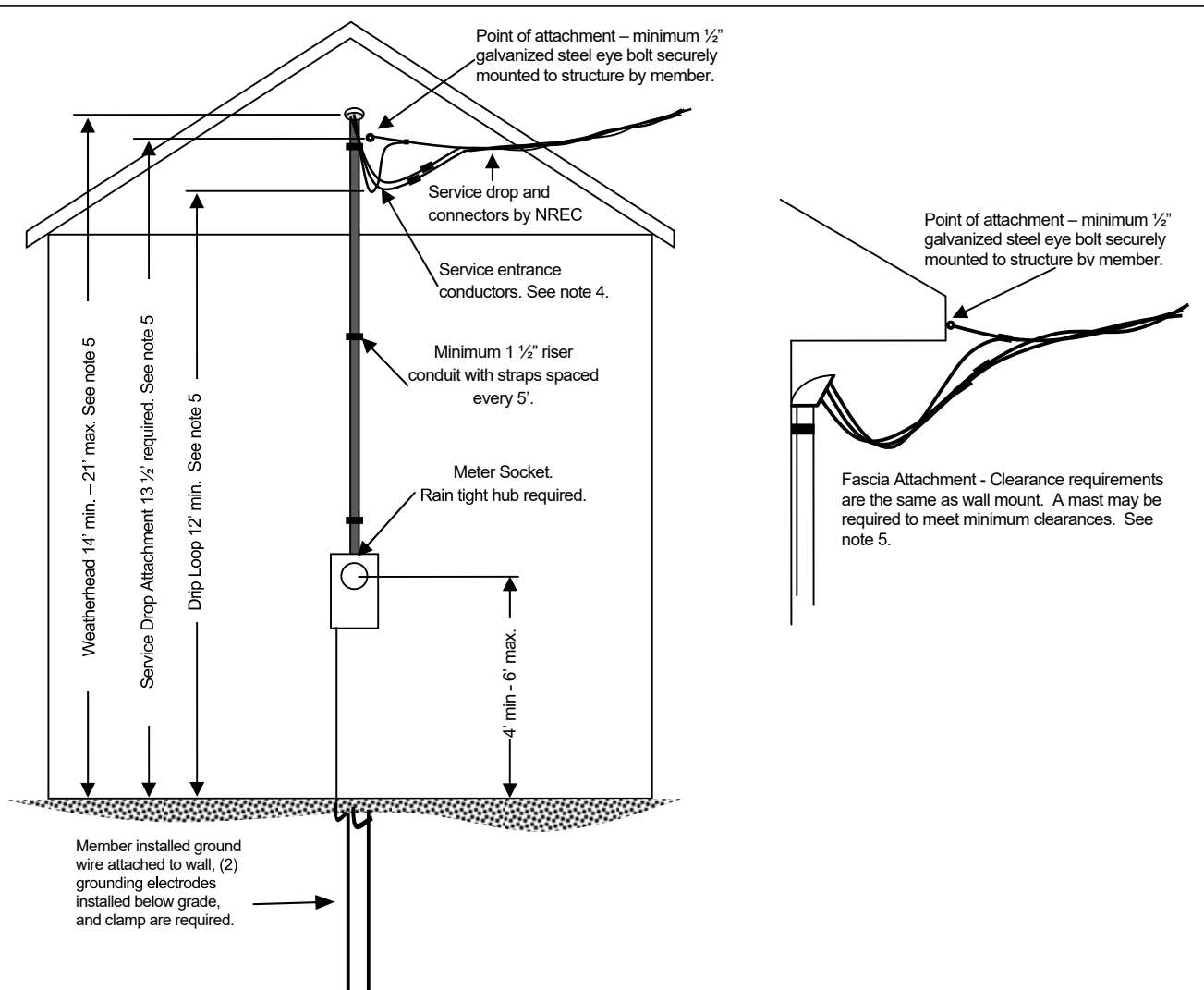
**Meter Pedestal**  
Single Phase Meter Up to 320A



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January 2019  
NOT TO SCALE



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**Notes**

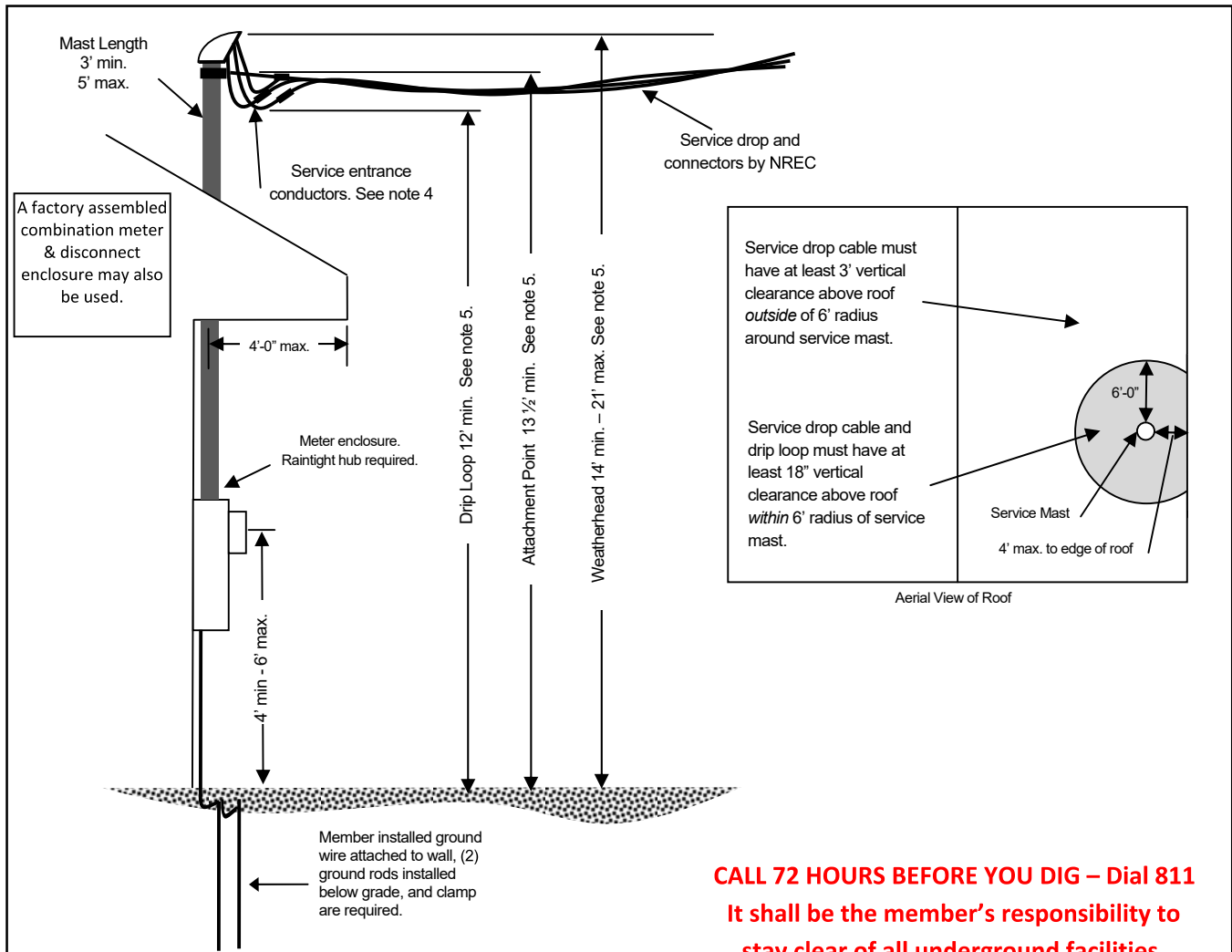
1. Member provides and installs: the service drop attachment point; service entrance conductors; conduits; weatherhead; meter socket; service disconnect switch; ground rod and wire; and all related materials. All equipment and conduit connections shall be raintight.
2. Cooperative provides and installs meter and service drop conductors and makes connections at the weatherhead.
3. This service shall be installed on the building at a location mutually agreed upon by the member and the Cooperative.
4. A minimum of 3'-0" of each conductor shall extend from the weatherhead. The neutral may be bare or insulated and marked with white tape on both ends and may be bare wire.
5. A service mast may be required to meet minimum clearances.
6. Point of attachment shall be either accessible to Cooperative's bucket truck or have enough surface (such as wall or building structure) and sufficient ground space on same member's property to safely support a ladder.

**Overhead Meter  
on Home or Building Attachment  
to Wall or Fascia  
Single Phase 240V Service Up to 320A  
January 2019  
NOT TO SCALE**



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**Notes**

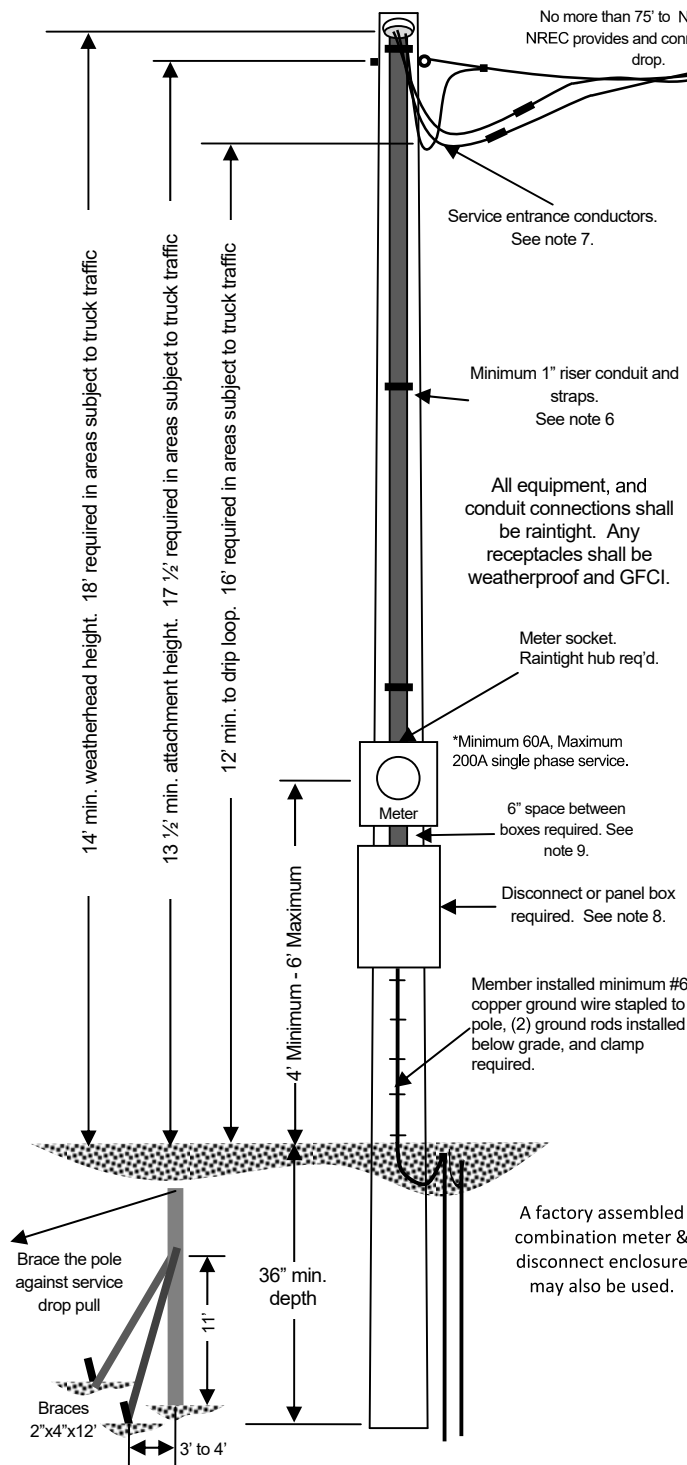
1. Member provides and installs: the service drop attachment point; service entrance conductors; conduits; weatherhead; meter socket; service disconnect switch; ground rod and wire; and all related materials. All equipment and conduit connections shall be raintight.
2. Cooperative provides and installs meter and service drop conductors and makes connections at the weatherhead.
3. This service shall be installed on the building at a location mutually agreed upon by the member and the Cooperative.
4. A minimum of 3'-0" of each conductor shall extend from the weatherhead. The neutral may be bare or insulated and marked with white tape on both ends and may be bare wire.
5. A service mast may be required to meet minimum clearances.
6. Point of attachment shall be either accessible to Cooperative's bucket truck or have enough surface (such as wall or building structure) and sufficient ground space on same member's property to safely support a ladder.

**Overhead Meter  
 on Home or Building  
 Service Mast Attachment  
 Single Phase Meter up to 320A  
 January 2019  
 NOT TO SCALE**



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Temporary Meter Pole

(Builder's Pole)

Single Phase Meter up to 200A October

2017

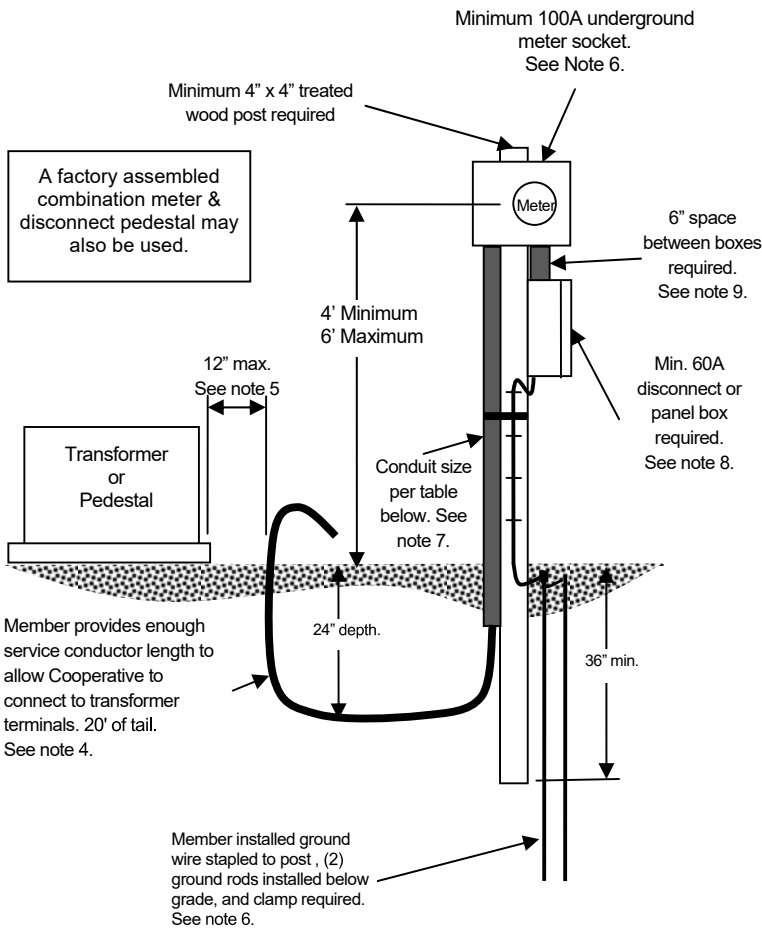
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**Northwestern Rural Electric Co-operative Association, Inc.**

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**Temporary Meter Pedestal is to be installed 10' from the NREC transformer or pedestal.**



**Notes**

1. Member provides and installs: post; service conductors; conduits; weatherhead; meter socket, service disconnect switch; ground rod and wire; and all related materials. All equipment and conduit connections shall be raintight. All receptacles shall be weatherproof and GFCI. All work shall comply with Cooperative standards, the National Electrical Code, and authorities having jurisdiction.
2. Cooperative provides and installs meter, and connects member's service conductor to the transformer or secondary pedestal.
3. This service shall be installed at a location mutually agreed upon by the member and the Cooperative. Service should be located away from traffic and work areas to avoid damage.
4. Service conductors shall be rated for direct burial. When air-conditioned or electrically heated construction trailers are to be served, minimum 100A rated service entrance equipment is required.
5. Member to trench to within 12" of pedestal or
6. Ground wire should be sized to meet NEC 250.66
7. Conduits to be electrical grade EMT, IMC, RMC, or Schedule 40 PVC.
8. A main disconnect is required for 7 or more breakers.
9. Meter and disconnect enclosures must be grounded

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**Temporary Meter Pedestal  
Served from Underground Source  
Single Phase Meter Up to 200A**

October 2018  
NOT TO SCALE

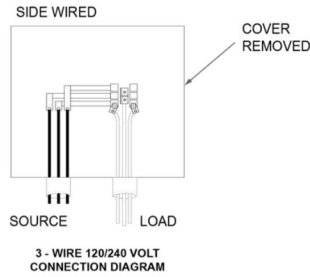
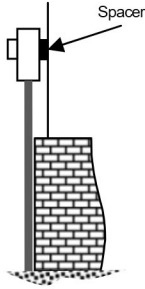


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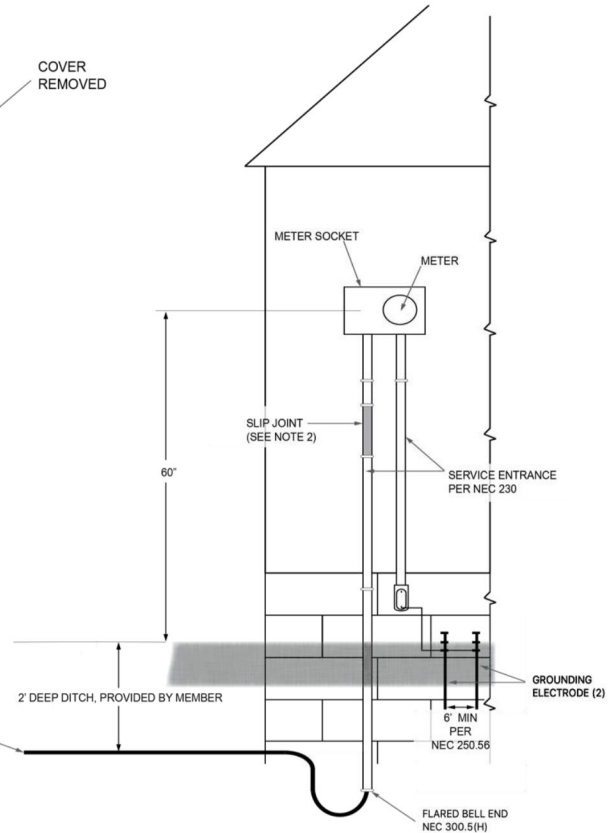
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**Mixed Siding Finishes on Building**  
The meter socket should be spaced out from the wall to keep the riser conduit free of bends. Any necessary bends or offsets shall have a minimum bend radius of 36".



3 - WIRE 120/240 VOLT CONNECTION DIAGRAM



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**Also see reverse side for underground service conduit system installation requirements.**

**Notes**

1. Member provides and installs: conduit from transformer or pedestal to the meter socket; meter socket; service disconnect switch; ground rod and wire; and all related materials. All work shall comply with Cooperative standards, the National Electrical Code, and authorities having jurisdiction. **\*Cooperative provides and installs service lateral conductors from NREC transformer or secondary pedestal to the meter.** Service shall be installed at a location mutually agreed upon by the member and the Cooperative.
2. Ground movement protection per NEC 300.5(J) to prevent damage due to settlement or frost heaves. NREC recommends the use of a slip joint conduit product such as the Rizzcon safety slip. Riser conduit shall be flush with wall when installed. 45° or 90° elbows around footings are not permitted.
3. If member installs conduit system, 3" conduit and pull rope is required. See Drawing on reverse side for conduit system requirements.
4. All above ground conduits and elbows shall be electrical grade EMT, IMC, RMC, or PVC. All conduit connections to be raintight.
5. Underground conduit shall be electrical grade Schedule 40 or Schedule 80 PVC.

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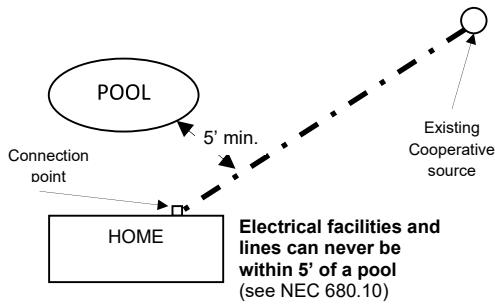
**Underground Meter On Home or Building**  
Served From Underground Source  
Single or Three Phase Service Up to 320A  
**NREC**  
January 2018  
NOT TO SCALE



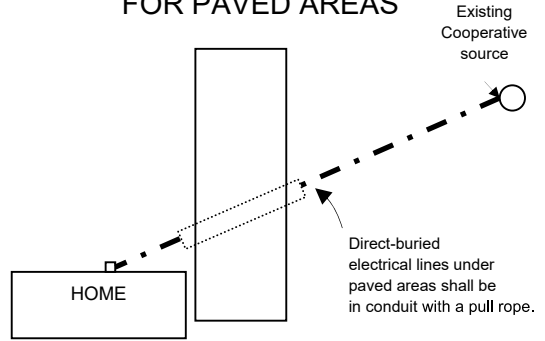
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### UNDERGROUND CLEARANCE FOR SWIMMING POOL



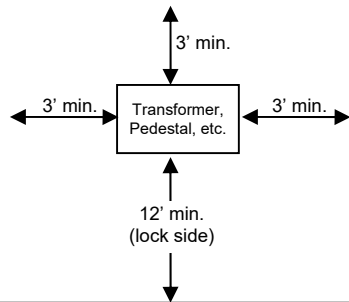
### DIRECT-BURIED REQUIREMENTS FOR PAVED AREAS



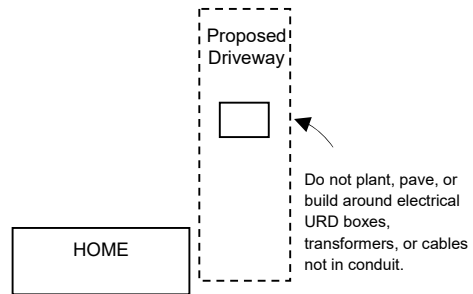
### Pad-Mounted Equipment Clearances

From shrubs, trees, fences, decks, etc.

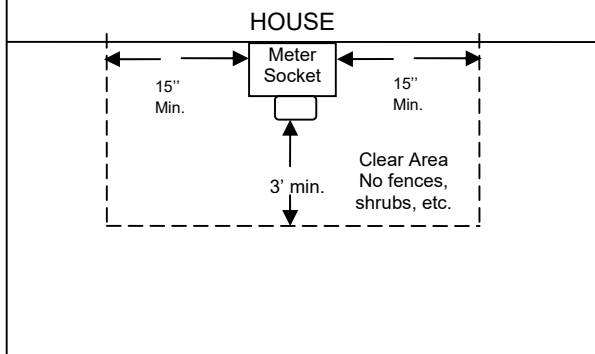
See Drawing 10.4-1 for clearance to buildings.



### DO NOT BLOCK ACCESS TO ELECTRICAL FACILITIES



### METER CLEARANCES



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**Notes:**

1. Member's facilities shall comply with Cooperative Standards, the NEC, and authorities having jurisdiction.
2. The meter is to be on the outside of the residence, located on the side nearest the Cooperative's facilities. The member may be charged for the additional cost of services that do not use the most direct route.
3. Do not plant, pave, or build around electrical boxes, transformers, or cables not in conduit.
4. If you desire to put your service in conduit, the conduit must be at least 3" in diameter and have a pull rope installed.
5. Hard angle and conduit runs over 250' should be avoided.

**Underground Meter On Home or Building**  
 Served From Underground Source  
 Single or Three Phase Service Up to 320A

**NREC**

January 2018

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