

# GENERAL NOTES

1. Residential and commercial meter loops are typically used when constructing facilities for permanent service. All guidelines outlined in this document shall be followed by your contractor or electrician. PEC shall provide and install a service wire drop to the member's meter loop.
2. The member shall be in compliance with the National Electrical Code (NEC) and all applicable codes and ordinances as legally required by any local authorities having jurisdiction. PEC is in compliance with the National Electrical Safety Code (NESC).
3. For your protection, PEC urges you or your electrician to use only NEC-approved procedures and materials. All meter loops must be sized according to the load to be served and NEC guidelines.
4. PEC will refuse service where a known hazardous condition exists and/or if connections do not meet the specifications outlined in this document. PEC urges the member to use a qualified electrician to prevent safety hazards, additional costs, and delays. PEC requires that all construction meet or exceed these specifications prior to service connection. While PEC makes all reasonable efforts to ensure good electrical practice on the member's side, the Cooperative is not responsible for validating additional criteria that may be applicable to the member's premises beyond the scope of this document.
5. The member will be responsible for providing, installing, replacement, and repair of the meter loop, including the meter socket, panels, conduit, underground cable, poles, racks, weatherhead, etc. The member shall own the meter rack and shall be solely responsible for the related construction, installation, and maintenance of all electrical and structural components. Splicing is not permitted within meter sockets. The underground cable used shall be an approved type for underground installation (USE type or UF type). Conductor size will be based on member load, location of meter socket, and NEC for size of conduit. No member-owned facilities shall be mounted on PEC-owned poles.
6. Member-owned poles shall be installed a minimum of 10' and a maximum of 40' from transformer. Never install member-owned poles and/or PEC poles under overhead electric lines. Weatherhead shall not extend above pole top. Steel poles must be capped to prevent water ingress and may be more than one piece if the final product is appropriately coupled and meets all other requirements. Pole shall be buried 10% of pole height + 2', be of sufficient height above grade to meet NESC clearances (NESC Table 232-1), and meet the following criteria:
  - 5" minimum diameter, at the narrowest point, for creosote-treated or commercially pressure-treated wood poles.
  - 4.5" outside diameter and minimum 0.237" thickness for round steel poles.
  - 4" square and minimum 0.25" thickness for square steel poles.
7. Clearances from ground level to service attachment point shall follow the requirements of NESC Table 232-1 and associated footnotes and NESC Rule 234C3d for residential decks. Clearances from ground level to service attachment shall be a minimum of 16' for service to a non-residential building or for residential services crossing potential traffic exceeding 8' in height. 12' clearance is permissible for a residential driveway accessible to pedestrians and for horseback riders less than 8' in height. 10' clearance is permitted for areas only accessible to pedestrians. This is to include all pole-mounted services and weatherheads mounted to the side of a structure and above the roof line of a structure.



*Michelle Galloway*  
09/08/2023

REV	D	DATE	09/08/2023	REVISION	(USE TYPE OR UF TYPE) WAS (USE OR UF TYPE), MATCH 320A NOTES, RE-WORDED NOTE 7	BY	RWC	CHK	SSS	APR	MMG
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**PEDERNALES ELECTRIC  
COOPERATIVE, INC.**

**RESIDENTIAL AND COMMERCIAL  
100-200-AMP METER LOOP SPECIFICATIONS**

drawn:	approved:	date:	
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# GENERAL NOTES

CONTINUED

8. Neutral conductor must be electrically continuous through the meter socket to the main panel and must be attached to the meter socket. Electric contractor has the option of terminating the neutral at the meter socket lug. Main panels will be terminated at the meter socket lugs. Neutral conductor size shall meet or exceed NEC or local ordinance requirements. It is the responsibility of the member or their electrician to make this determination.
9. A 200-amp meter loop is rated for breaker(s) less than or equal to 225 amps. For information on higher amperages, refer to the 320-Amp Meter Loop Specifications.
10. The exterior of the service area shall have a weatherproof main disconnect panel fused or breaker-protected regardless of the number of branch circuit breakers.
11. Ground cables shall be #6 copper minimum or larger per NEC Table 250.66. Ground rods shall be 5/8" x 8' copper-clad with clamp and driven at or below grade per NEC. Service areas not bound by permits or codes are required to install a 5/8" x 8' copper-clad ground rod. If the electric service is installed under an electrical permit, other grounding methods may be used in accordance with NEC.
12. Bypass levers shall be equipped on all single-phase meter installations 320 amps and above, and on all three-phase meter installations regardless of amperage.
13. For commercial/industrial/multi-family residential underground services where the meter or a bank of meters is to be located on the building or adjacent to the load, the service (cable, conduit, and trench) from the transformer to the load will be provided by the member/developer.
14. Members and/or contractors will have a 30-day grace period to become fully compliant when new PEC specifications are posted. Any project started prior to the release of new specifications can be completed using the previous specifications.
15. Please contact your PEC district office at 1-888-554-4732 prior to construction.



*Michelle Galloway*

09/08/2023

REV | E | DATE | 09/08/2023 | REVISION | REMOVED WIRE GUIDELINE CHART, MATCH 320A NOTES | BY | RWC | CHK | SSS | APR | MMG



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100-200-AMP METER LOOP SPECIFICATIONS

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# INSTALLATION NOTES

**ORIENTATION:**

The meter loop shall be mounted on the side of the pedestal facing the member's lot. Weatherproof fused or breaker-protected main disconnect panel will have a main disconnect on the outside of the building regardless of the number of circuit breakers.

**RACK:**

1. Racks built off of existing meter pedestals shall be self-supporting with a minimum of 2" rigid or IMC pipes and caps, cut to the required length, with 10% of the total length +2' of the pipe set in the ground in concrete.
2. Shall be stood away from the pedestal a minimum of 18" and not more than 24" with a 3" rigid pipe nipple of required length.
3. The cross supports for the meter socket, panel, or panels shall be a minimum of 3/4" x 1-1/2" unistrut of the required length, shall not extend more than 2" past the rigid pipe supports, and shall be bolted firmly to the rigid or IMC pipe.

**WIRE SIZE:**

Wire shall be sized in accordance with NEC guidelines and local requirements.

**INSTALLATION OF WIRE:**

The wire shall run from the line side of the meter socket into the pedestal allowing 36" of tail to connect to the pedestal connectors, and the same size wire or equivalent parallel conductors shall be run from the load side of the meter socket to the panel or panels.

**PIPE NIPPLE CONNECTIONS:**

1. 2" Schedule 40, rigid, or IMC nipples shall be used between the meter socket and 200A or 125A panels or between 200A or 125A panels and the gutter when used.
2. Schedule 40 PVC only allowed if ground wire is installed continuously between the panel(s) and the meter socket as shown on Page 11.

**GROUNDING:**

Electric services, including but not limited to, service equipment, raceways, service distribution enclosures, junction boxes, wireways, enclosures, and any service conductor to be grounded/bonded, shall be grounded/bonded in accordance with the latest edition of the NEC. See Page 11 for grounding and bonding detail.



*Michelle Galloway*  
09/08/2023

**METER SOCKETS AND PEDESTALS:**

Meter sockets shall have 3" knockouts. Meter pedestals shall not have a meter mounted on the door. Meters are not allowed inside any enclosed area or any area to be enclosed in the future. Please see Page 13 of this specification for proper clearances.

REV	B	DATE	09/08/2023	REVISION	REM. DOUBLE BARREL LUG NOTES, REM. GALVANIZED CHANGED RIGID PIPE NOTES, MATCH 320A NOTES, ADDED METER SOCKETS AND PEDESTAL NOTE, CHANGED WIRE SIZE AND GROUNDING NOTES	BY	RWC	CHK	SSS	APR	MMG
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**PEDERNALES ELECTRIC  
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100-200-AMP METER LOOP SPECIFICATIONS

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# METER LOOP DETAIL

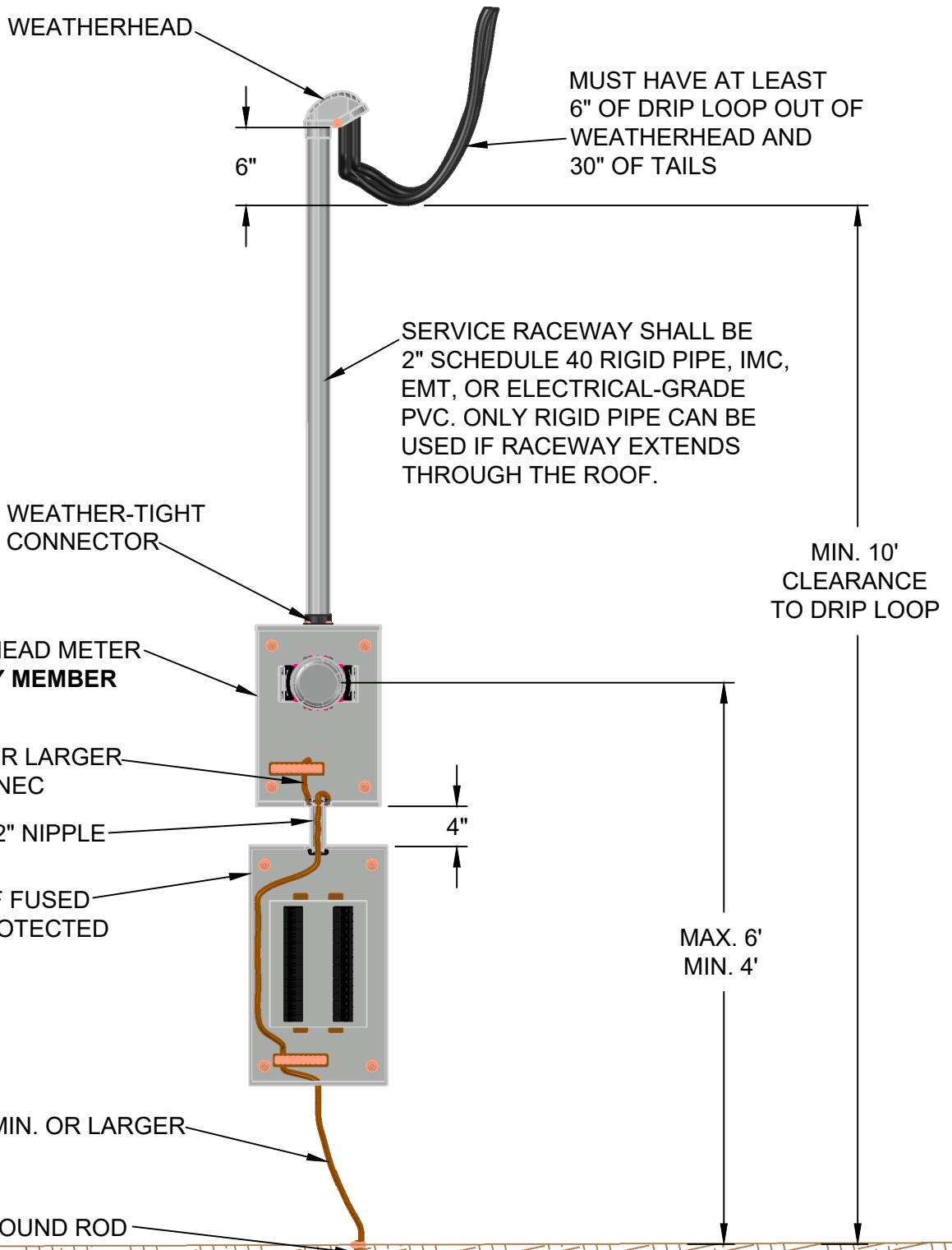
SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES



*Michelle Galloway*

09/08/2023

SEE PAGE 11 FOR  
GROUNDING AND  
BONDING DETAIL



REV	B	DATE	09/08/2023	REVISION	MAX, 6' MIN.4' WAS MAX. 6' MIN. 5' MATCH 320A NOTES ADDED GROUNDING AND BONDING NOTE	BY	RWC	CHK	SSS	APR	MMG
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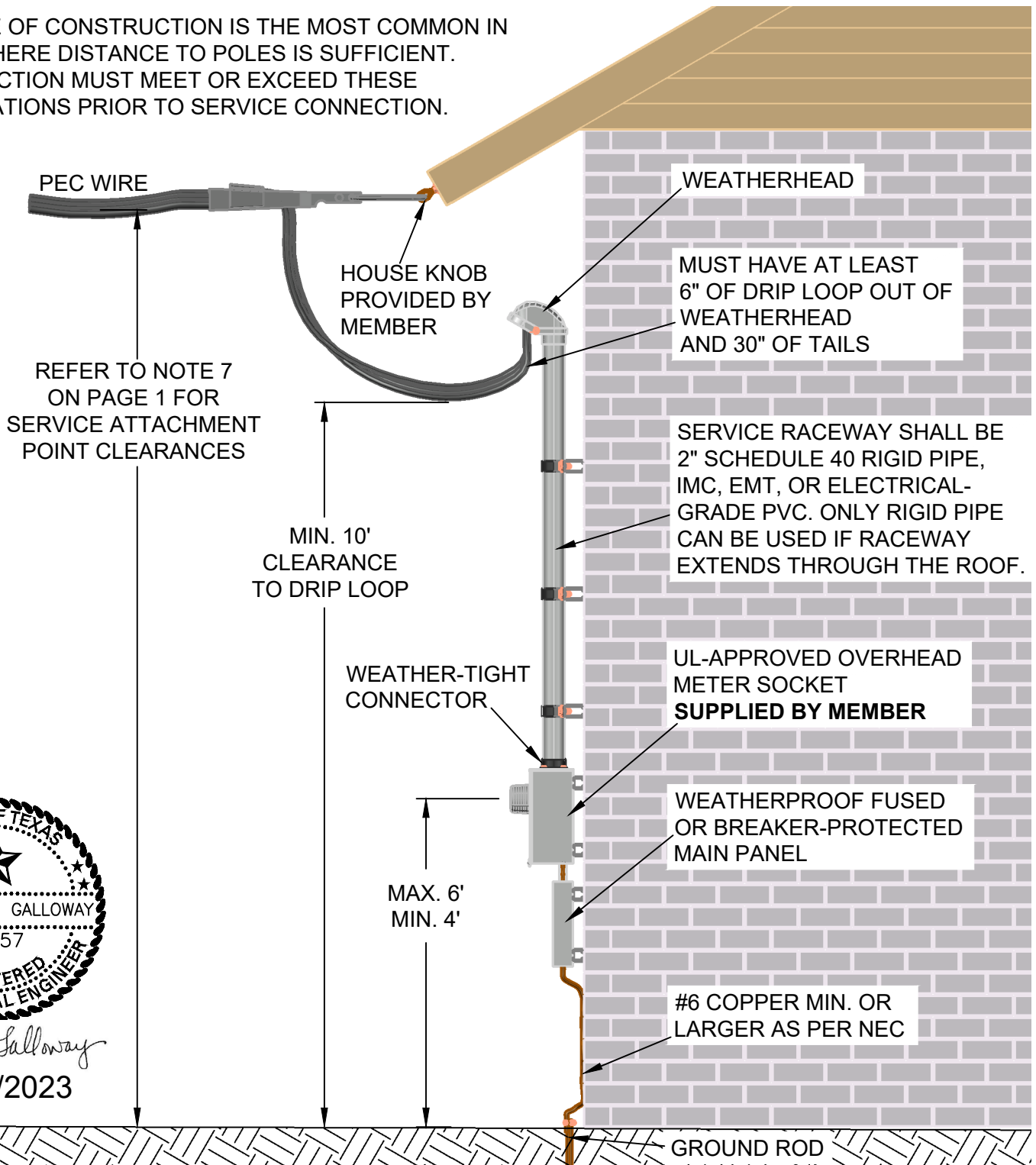
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# CONSTRUCTION ON RESIDENTIAL OR COMMERCIAL LOCATION

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES

THIS TYPE OF CONSTRUCTION IS THE MOST COMMON IN AREAS WHERE DISTANCE TO POLES IS SUFFICIENT. CONSTRUCTION MUST MEET OR EXCEED THESE SPECIFICATIONS PRIOR TO SERVICE CONNECTION.



*Michelle Galloway*  
09/08/2023

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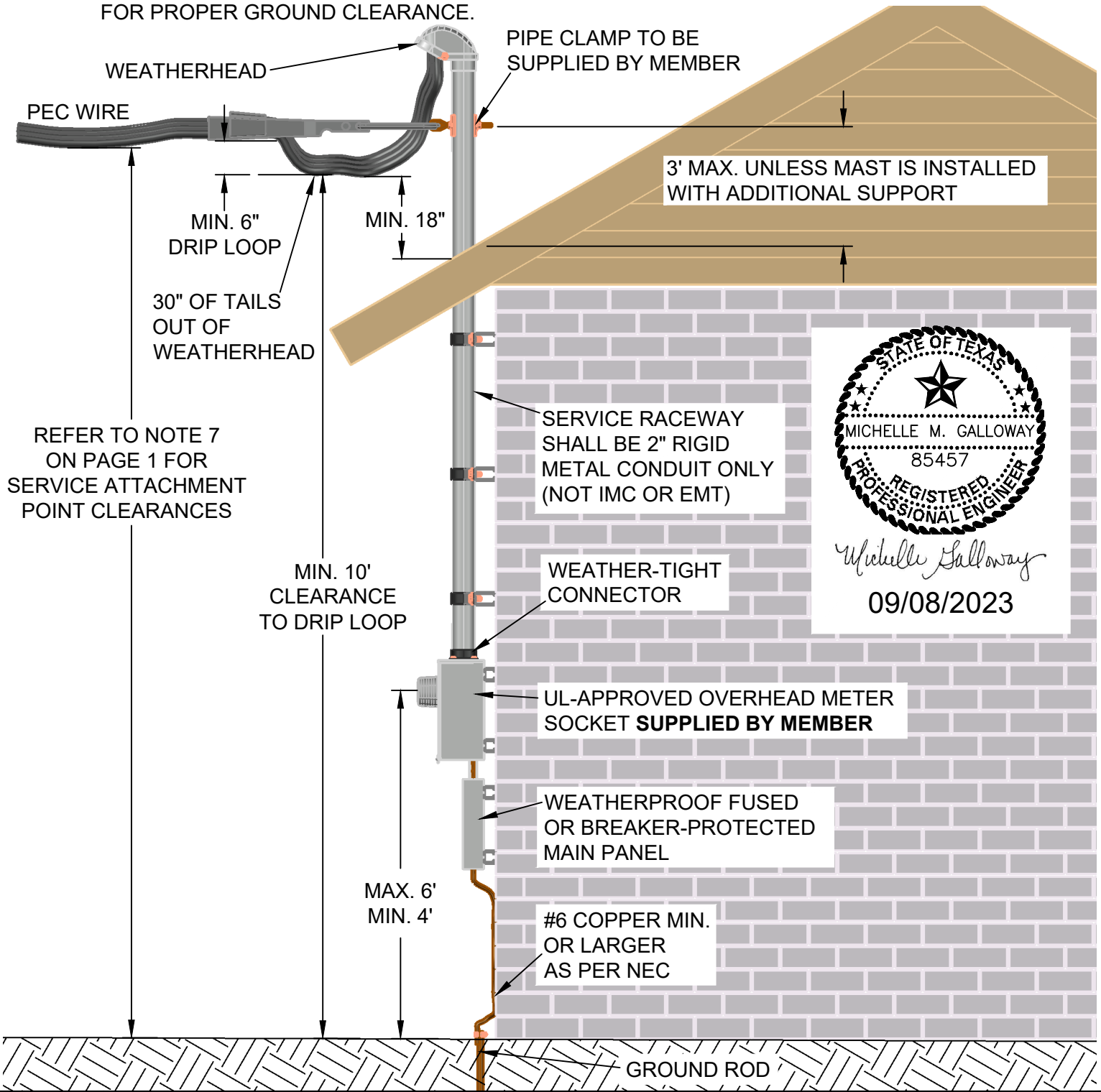
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# MAST-TYPE CONSTRUCTION THROUGH ROOF

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES. THIS TYPE OF CONSTRUCTION IS APPROPRIATE WHEN THE EXISTING STRUCTURE DOES NOT ALLOW FOR PROPER GROUND CLEARANCE.



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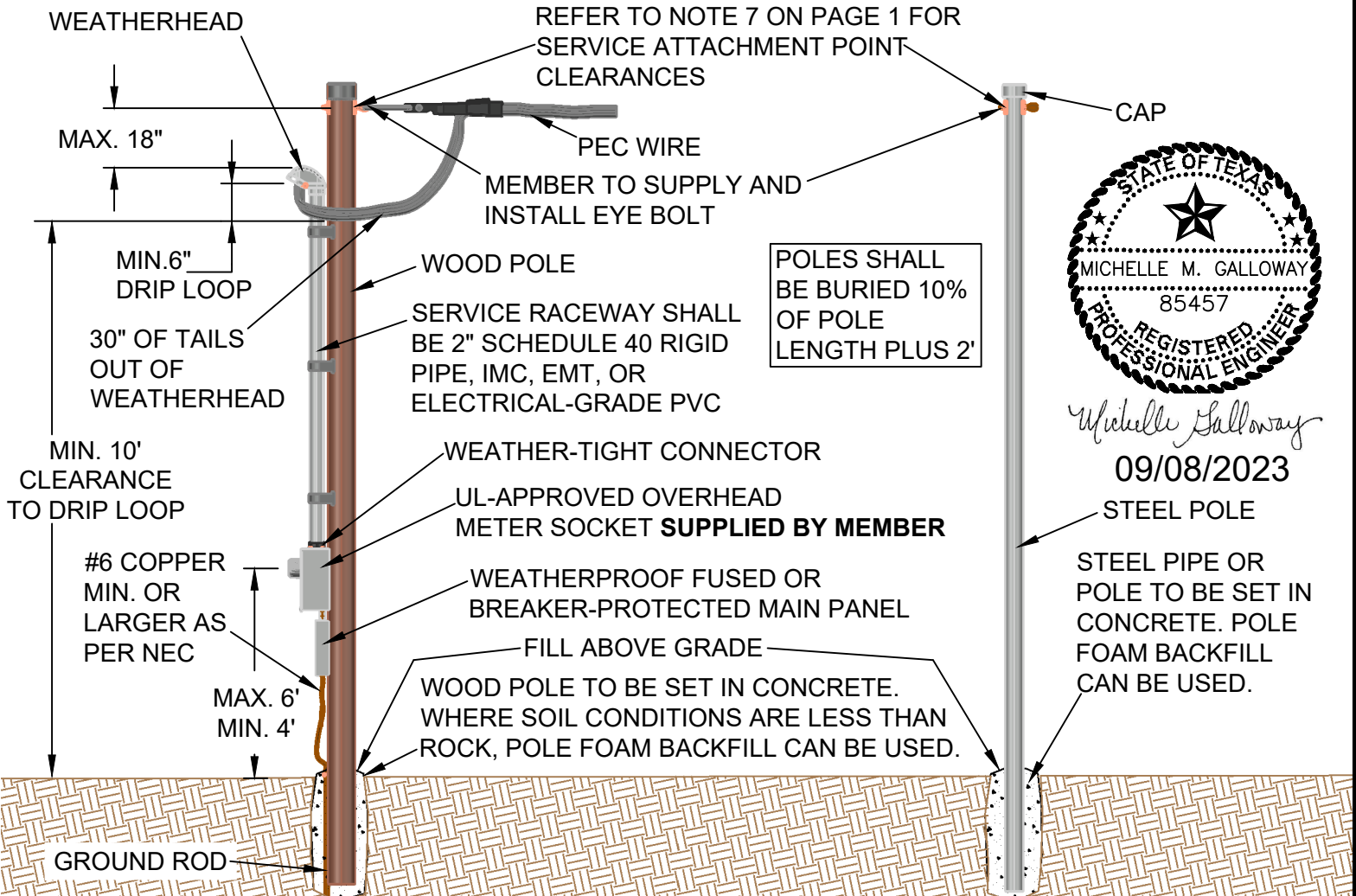
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# CONSTRUCTION OF MEMBER-OWNED METER POLES

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES

1. Member to purchase and install pole. Member-owned facilities are not permitted on PEC poles.
2. There shall be no more than two loops on any one pole. Weatherhead shall not extend above pole top.
3. Member-owned poles shall be set at a minimum depth of 10% of pole length plus 2', be of sufficient height above grade to meet NESC clearances (NESC Table 232-1) and meet the following criteria:
  - 5" minimum diameter, at the narrowest point, for creosote-treated or commercially pressure-treated wood poles.
  - 4.5" outside diameter and minimum 0.237" thickness for round steel poles.
  - 4" square and minimum 0.25" thickness for square steel poles.
4. Steel poles must be capped to prevent water ingress and may be more than one piece if the final product is appropriately coupled and meets all other requirements.
5. Member-owned pole may be installed no closer than 10' and no further than 40' from the transformer and/or PEC pole. NEVER install member-owned poles under overhead electric lines.
6. Installations must comply with NEC and NESC specifications.



REV	C	DATE	09/08/2023	REVISION	MAX. 6' MIN. 4' WAS MAX. 6' MIN. 3' REDRAWN, MATCH 320A NOTES	BY	RWC	CHK	SSS	APR	MMG
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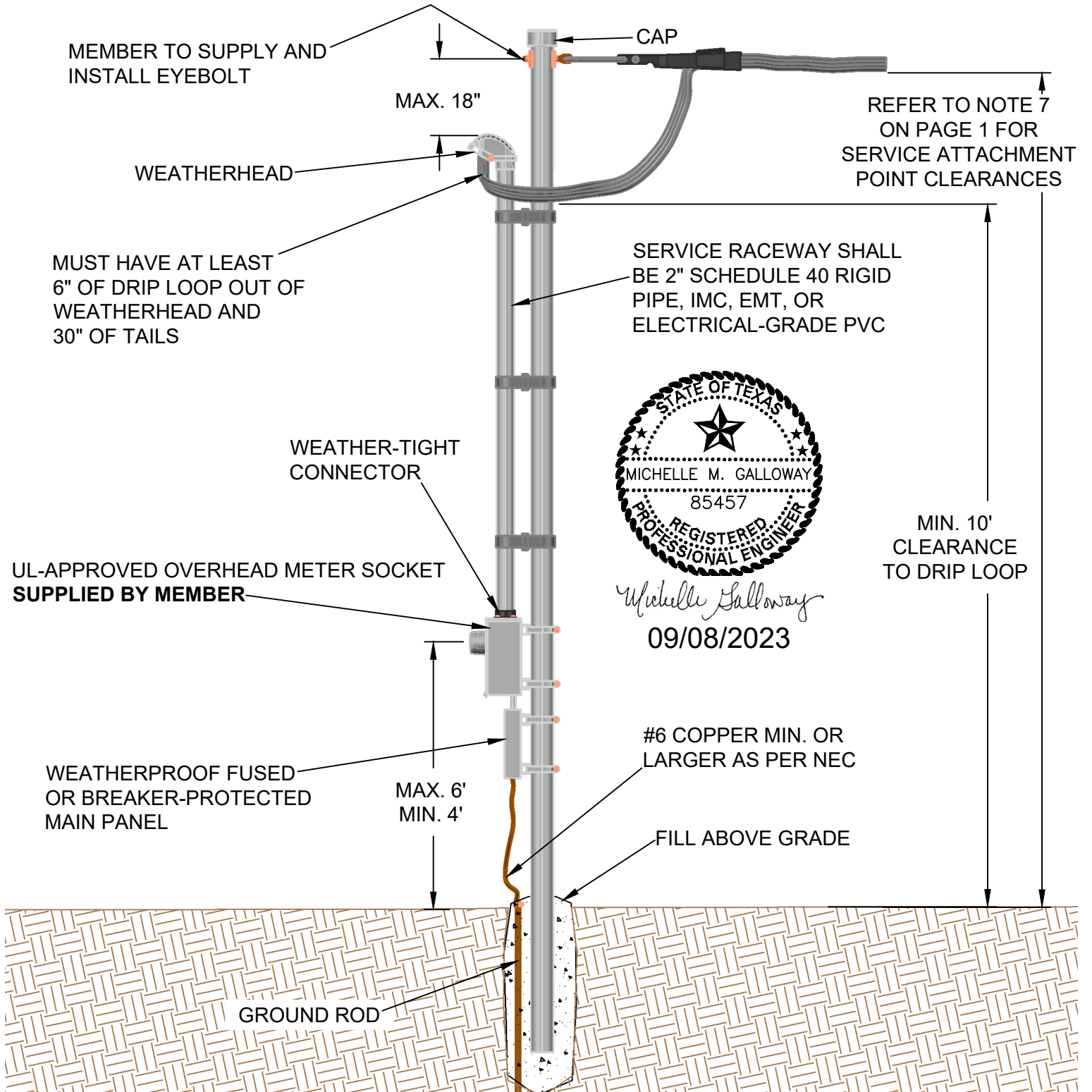
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# 200A SINGLE PHASE LOOP TOP TO BOTTOM

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES. METER POLE NOTES ARE ON PAGE 7. **MEMBER TO PURCHASE AND INSTALL POLE.**



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# SINGLE-PHASE LOOP (RACK TYPE) WITH SIDE MOUNT

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES. METER POLE NOTES ARE ON PAGE 7. **MEMBER TO PURCHASE AND INSTALL POLE.**



*Michelle Galloway*  
09/08/2023

SEE PAGE 11 FOR  
GROUNDING AND  
BONDING DETAIL

UL-APPROVED OVERHEAD METER SOCKET  
SUPPLIED BY MEMBER

MUST HAVE AT LEAST  
6" OF DRIP LOOP OUT  
OF WEATHERHEAD  
AND 30" OF TAILS

SERVICE RACEWAY SHALL BE  
2" SCHEDULE 40 RIGID PIPE, IMC,  
EMT, OR ELECTRICAL-GRADE PVC

REFER TO NOTE 7  
ON PAGE 1 FOR  
SERVICE ATTACHMENT  
POINT CLEARANCES

CAP

WEATHER-TIGHT  
CONNECTOR

WEATHERPROOF  
200A MAIN  
DISCONNECT  
OR PANEL

MIN. 10'  
CLEARANCE  
TO DRIP LOOP

UNISTRUT MIN.  
3/4" X 1 1/2" OF  
REQUIRED LENGTH

CAP

2" MAX.  
EXTENSION

2" NIPPLE

#6 COPPER MIN. OR  
LARGER AS PER NEC

RIGID PIPE OR IMC  
TO BE SET IN  
CONCRETE 10%  
OF TOTAL HEIGHT  
+2' DEEP

MAX. 6'  
MIN. 4'

FILL ABOVE  
GRADE

GROUND ROD

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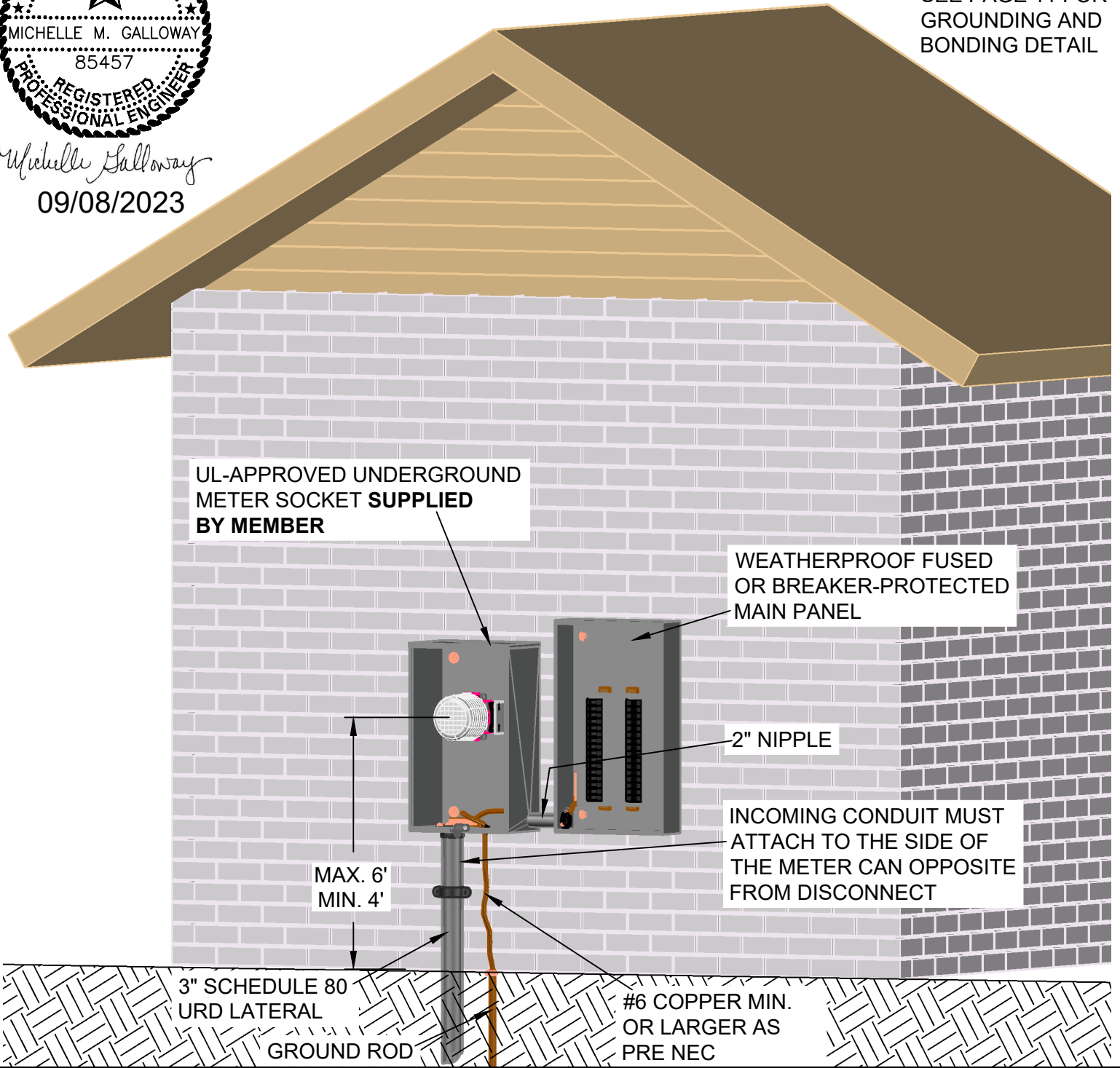
# TYPICAL URD LOOP ON THE SIDE OF A HOUSE

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES

SEE PAGE 11 FOR  
GROUNDING AND  
BONDING DETAIL



*Michelle Galloway*  
09/08/2023



REV	A	DATE	09/08/2023	REVISION	MAX. 6' MIN. 4' WAS MAX. 6' MIN. 5' REDRAWN AND MATCH 320A NOTES	BY	RWC	CHK	SSS	APR	MMG
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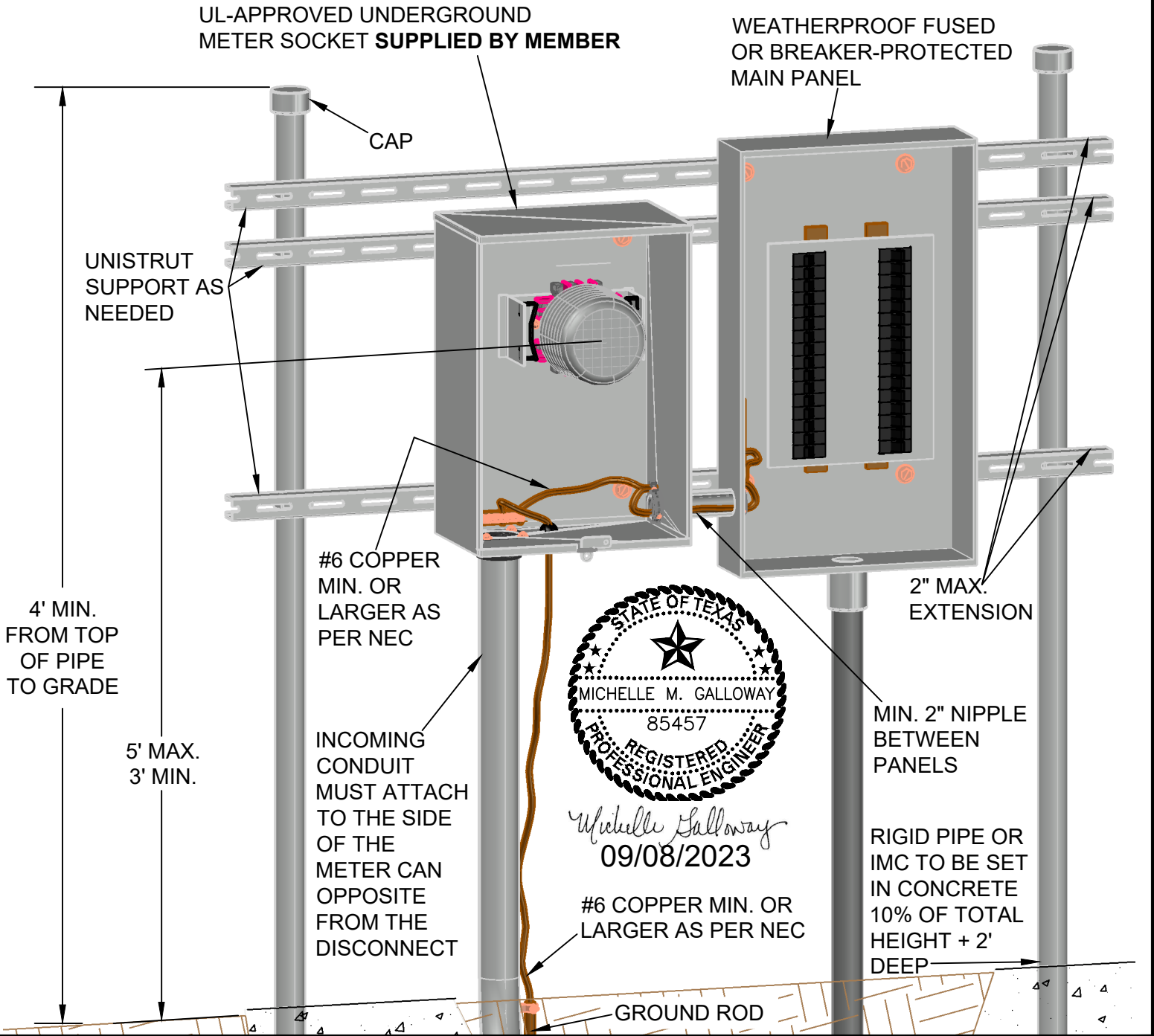
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# URD FREE-STANDING RACK

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES

MEMBER WILL BE RESPONSIBLE FOR THE INSTALLATION OF UNDERGROUND CABLE FROM THE BREAKER TO THE LOAD SIDE OF THE METER SOCKET. THE UNDERGROUND CABLE USED SHALL BE AN APPROVED TYPE FOR UNDERGROUND INSTALLATION (USE TYPE OR UF TYPE). CONDUCTOR SIZE WILL BE BASED ON MEMBER LOAD, LOCATION OF METER, AND NATIONAL ELECTRICAL CODE FOR SIZE OF CONDUIT.



REV	B	DATE	09/08/2023	REVISION	ADDED GROUNDING AND BONDING INFO REMOVED RIDGID FROM NIPPLE NOTE	BY	RWC	CHK	SSS	APR	MMG
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# SELF-CONTAINED METERING PEDESTAL UNDERGROUND SERVICE

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION NOTES

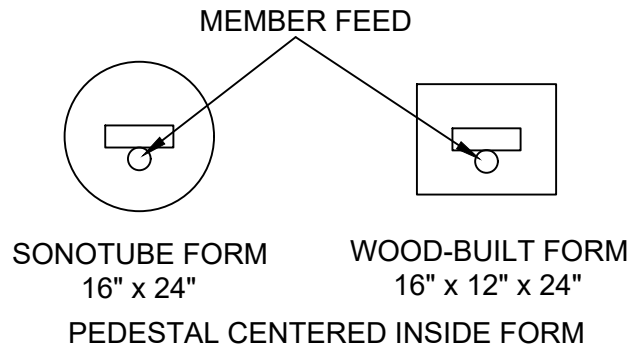
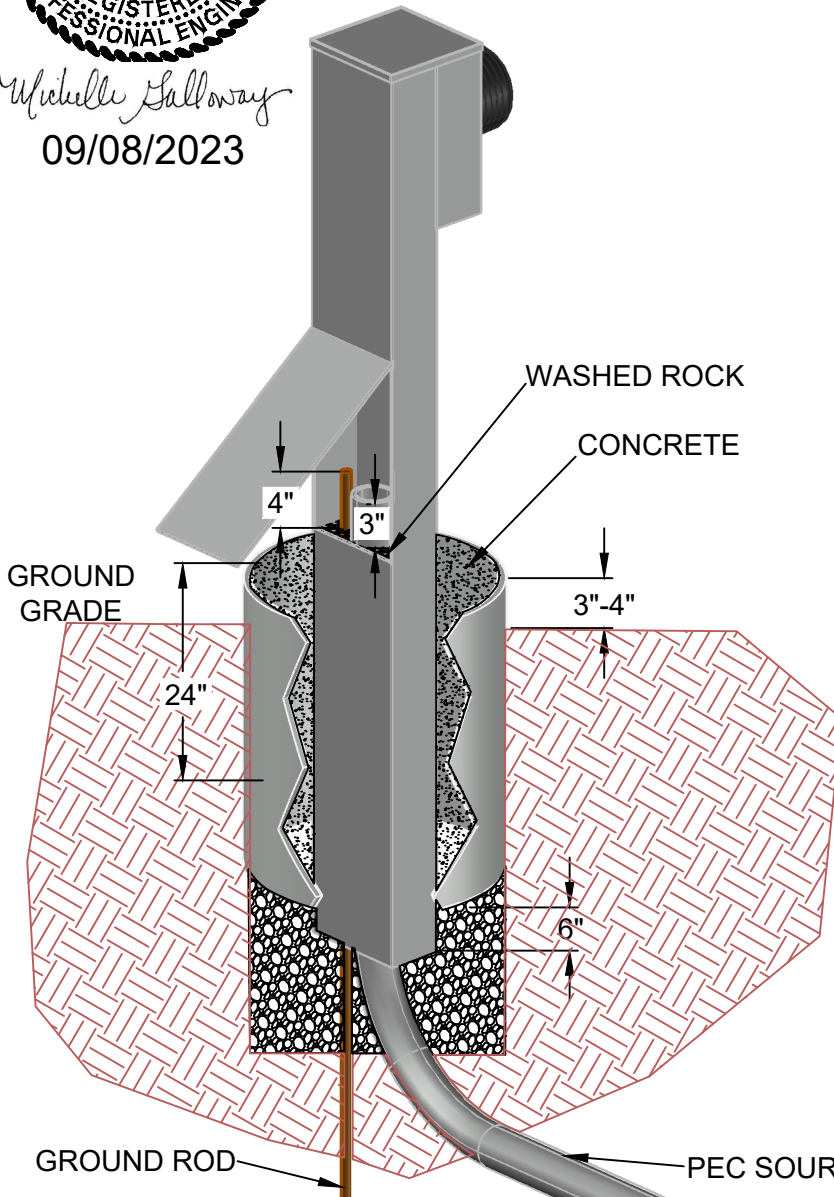
Approved Meter Pedestal:

- Milbank U5136-O-200s 200 AMP



*Michelle Galloway*  
09/08/2023

1. Other meter pedestal manufacturers are accepted but must be approved by PEC. Meter height shall be 50" to center above final ground grade. Meter should face street or driveway. Mark with address number if not otherwise posted on property.
2. Conduit to be sized by PEC and installed by member. Source feed conduit shall be inside enclosure 3" above opening. Underground conduit installed according to PEC specifications. Member shall connect to PEC-installed conduit stub.
3. Ground rod: 5/8" x 8' copper clad, installed inside enclosure 4" above opening. Minimum #6 copper connected to neutral lug or neutral bar.
4. Forms: 16" x 24" Sonotube or 16" x 12" x 24" wood form. Protective tar tape, polywrap tape, or rubber spray paint from 2" above encased concrete to the bottom of enclosure. All forms must be removed after concrete poured.
5. Fill inside cavity of pedestal with washed rock up to ground grade to restrict conduit movement.
6. Mule tape to be installed in conduit by member. Schedule with PEC if source feeds from energized equipment.



REV | B | DATE | 09/08/2023 | REVISION | REDRAWN | BY | RWC | CHK | SSS | APR | MMG



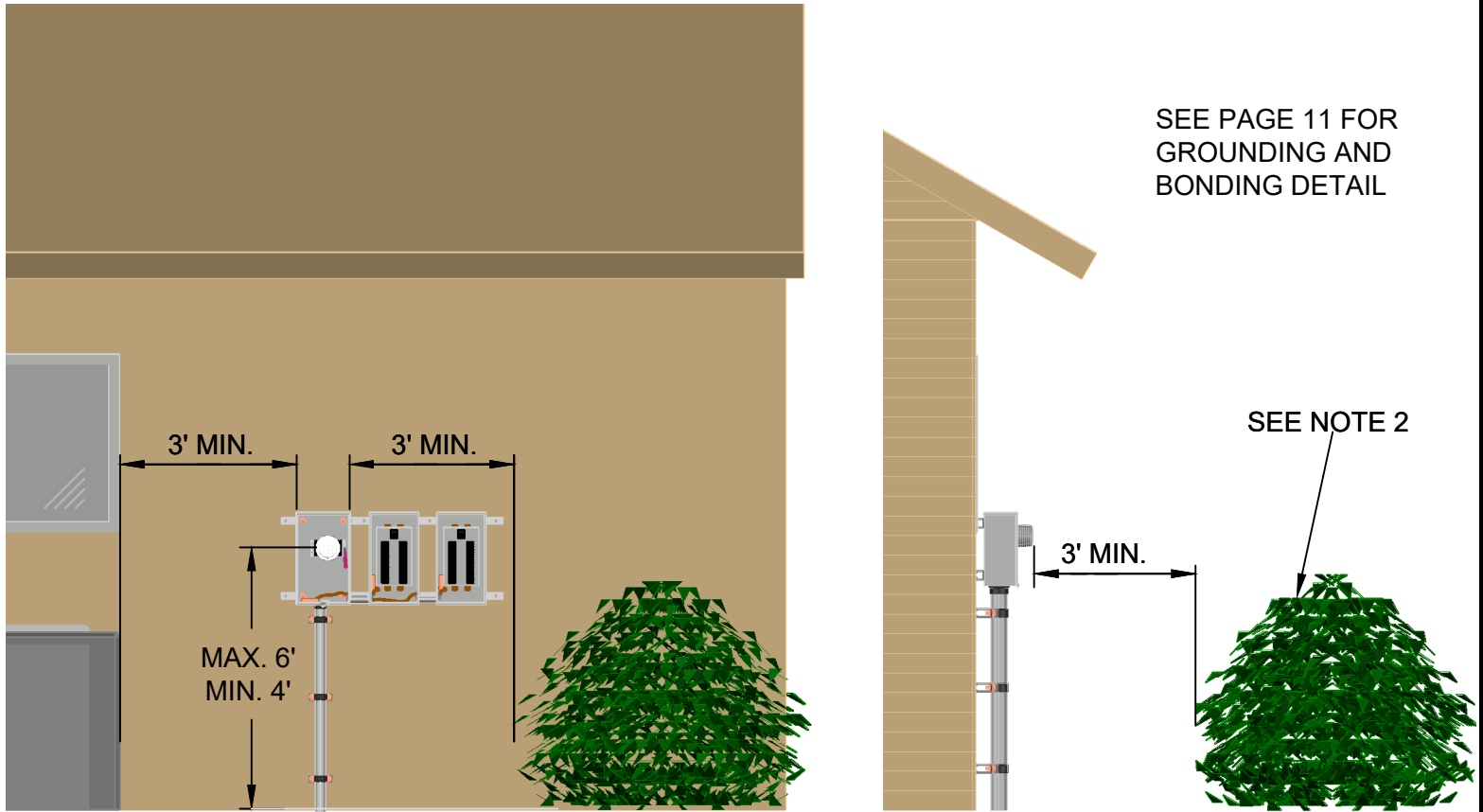
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# METER SOCKET VEGETATION AND EQUIPMENT CLEARANCES

SEE PAGES 1, 2, AND 3 FOR GENERAL NOTES AND INSTALLATION GUIDELINES



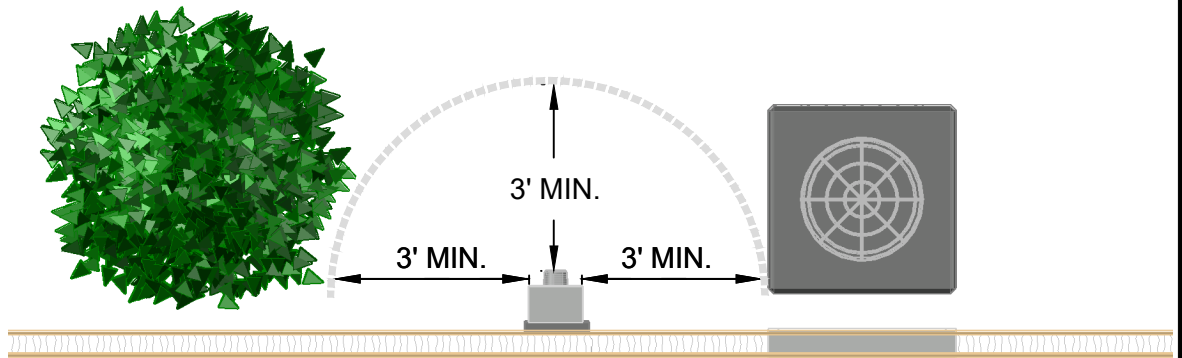
SEE PAGE 11 FOR GROUNDING AND BONDING DETAIL

SEE NOTE 2



*Michelle Galloway*

09/08/2023



**NOTES:**

1. PERMANENT AND/OR TEMPORARY OBSTRUCTIONS ARE NOT PERMITTED WITHIN 3' IN ANY DIRECTION OF AN ELECTRIC METER.
2. OBSTRUCTIONS INCLUDE BUT ARE NOT LIMITED TO TREES, SHRUBS, HVAC UNITS, GENERATORS, WALLS, FENCES, GAS METERS, WINDOWS, AND/OR BUILDINGS.

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