

# Drilling & Notching

## Wood Floor Framing

**R502.8 Drilling and notching.** Structural floor members shall not be cut, bored or notched in excess of the limitations specified in this section. See Figure R502.8.

**R502.8.1 Sawn lumber.** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51 mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches (51 mm) to the notch.

**R502.8.2 Engineered wood products.** Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a registered design professional.

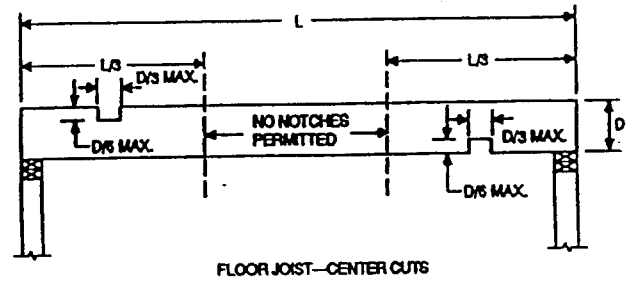
## Wood Roof/Ceiling Framing

**R802.7 Cutting and notching.** Structural roof members shall not be cut, bored or notched in excess of the limitations specified in this section.

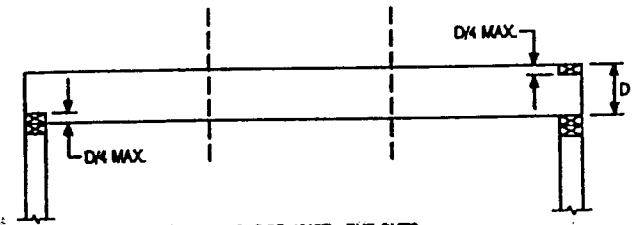
**R802.7.1 Sawn lumber.** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of the holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51 mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches (51 mm) to the notch.

**Exception:** Notches on cantilevered portions of rafters are permitted provided the dimension of the remaining portion of the rafter is not less than 4-inch nominal (102 mm) and the length of the cantilever does not exceed 24 inches (610 mm).

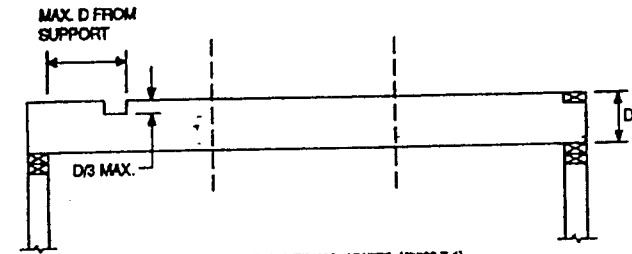
**R802.7.2 Engineered wood products.** Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a registered design professional.



FLOOR JOIST—CENTER CUTS



FLOOR JOIST—END CUTS



RAFTER/CEILING JOISTS (R802.7.1)

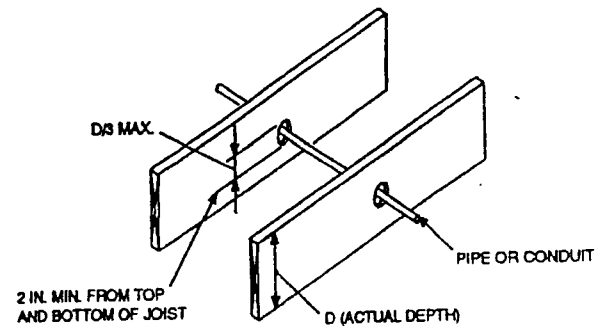


FIGURE R502.8  
CUTTING, NOTCHING AND DRILLING

# Inspections & Structural Considerations

Piping systems must be inspected prior to being covered or concealed by finish construction materials. Each trade must work together to ensure against building damage from excessive holes or notching. At final inspection, the fixtures

must have a watertight seal to floors and walls, and penetration must be properly flashed to prevent leakage into the building.

- General** IRC
- Inspect piping before covering trenches ..... [2503.2]
  - No pipes concealed until tested, inspected & approved [2503.2]
  - Gas test—3psl (10psl-6in mercury) for 10 (15) min ... [2417.4]
  - Gas test medium air, nitrogen, or CO<sub>2</sub> (not oxygen) ... [2417.2]
  - Turn off or cap all outlets before first turning on gas [2417.6.2]
  - Detect leaks w/[gas detector] soap suds (no matches) [2417.5.1]
  - Defective gas piping must be replaced, not repaired ... [2414.7]
  - Exterior pipe penetrations must be caulked ..... [2606.1]
  - Flashing req'd for roof penetrations ..... [905.2.8.5]

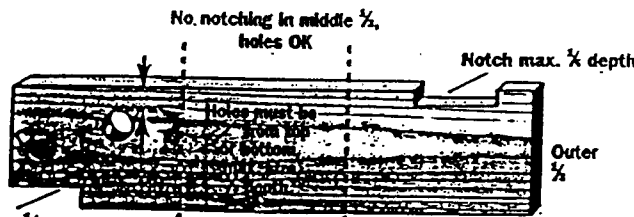
- Pipe protection** IRC
- Water pipe—notches and holes within 1½in (1in) of edge must have steel nail-plate protection for plastic, flexible, or copper piping ..... [2603.2.1]
  - CSST req's shielding devices per manu ..... [2414.5.3]
  - Copper pipe req's striker plate protection if <1in (1½in) of stud face ..... [2415.5]

- Notches in Joists and Rafters**
- Notches in sawn lumber max ¼ length & ¼ depth of member ..... [502.8.1]
  - Notches in sawn lumber not in middle ½ ..... [502.8.1]
  - End notches max ¼ depth of member ..... [502.8.1]
  - No notches in tension side of members ≥4in except at ends ..... [502.8.1]
  - Holes 2in min to top or bottom or notch ..... [502.8.1]
  - Engineered product (TJI®'s) notches, holes, or cuts per manu ..... [502.8.2]
  - No field modification of trusses, e.g., notching, cutting [802.10.4]

- Greenboard (Water-Resistant Gypboard)** IRC
- Not over vapor retarder ..... [702.4.3]
  - OK for adhesive ceramic tile (not in shower) ..... [702.4.3]
  - All cut or exposed edges must be sealed with water-resistant sealant ..... [702.4.2]
  - Not on ceilings with >12in o.c. framing ..... [702.4.2]
  - Finish to extend min 72in (70) above drain ..... [307.2]

- Tile Backer Board (Cement Board)**
- Suitable for adhesive ceramic tile ..... [702.4.1]
  - Req's building paper backing ..... [manu]
  - Corrosion-resistant fasteners ..... [manu]
  - All joints covered with water-resistant sealant ..... [702.4.2]
  - Water-resistant material to extend min 72in (70in) above drain ..... [307.2]

- Stud Notching and Boring**
- Bearing or exterior wall max notch 25% boring 40% ..... [602.6]
  - Boring to 60% OK if stud doubled and not >2 successive studs bored ..... [602.6X]
  - Nonbearing studs notches OK to 40% ..... [602.6]
  - Nonbearing studs boring OK to 60% ..... [602.6]
  - Holes no closer than ¾ to face of stud ..... [602.6]
  - Holes not in same stud section as cuts or notches ... [602.6]
  - If top plate >50% [all notches] removed, galvanized metal tie with six 16d nails req'd ..... [602.6.1]

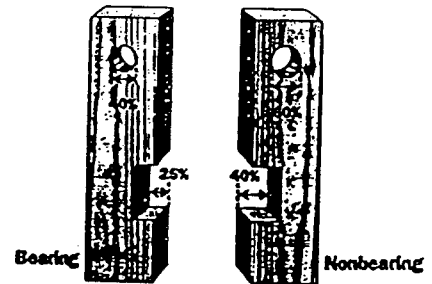


[No notching at bottom if ≥4" thick except at ends]

*Floor joist*

Floor Joist Spans—40lb. live load	Notching			Boring		
	DF#2	12" o.c.	16" o.c.		24" o.c.	
[2x6]	10'9"	9'9"	8'1"	1 3/4"	7/8"	1 1/2"
[2x6]	10'9"	9'9"	8'6"	1 3/4"	1 1/2"	2 3/4"
[2x8]	14'2"	12'7"	10'3"	2 3/4"	1 1/2"	3 1/4"
[2x8]	14'2"	12'10"	11'3"	2 3/4"	1 1/2"	3 1/4"
[2x10]	17'9"	15'5"	12'7"	2 3/4"	1 1/2"	3 1/4"
[2x10]	18'0"	16'5"	14'4"	2 3/4"	1 1/2"	3 1/2"
[2x12]	20'7"	17'10"	14'7"	2 3/4"	1 1/2"	3 1/2"
[2x12]	21'11"	19'11"	17'5"			

ed on IRC T502.3.1(2) & 502.8..



Stud Size	Bearing Walls (to 10ft. high)	
	2x4	3x4
Supporting roof & ceiling	24" o.c. <sup>1</sup>	24" o.c. <sup>1</sup>
Roof & ceiling + 1 floor	16" o.c.	24" o.c.
Roof & ceiling + 2 floors	n/a	16" o.c.
Notching	7/8"	7/8"
Boring	1 3/4"	1 3/4"
Boring 2 doubled consec.	2"	2"
Nonbearing Walls		
Notching	1 3/4"	1 3/4"
Boring	2"	2"

1. Reduce to 16" if utility grade studs are used  
Based on IRC T602.3(5) and 602.

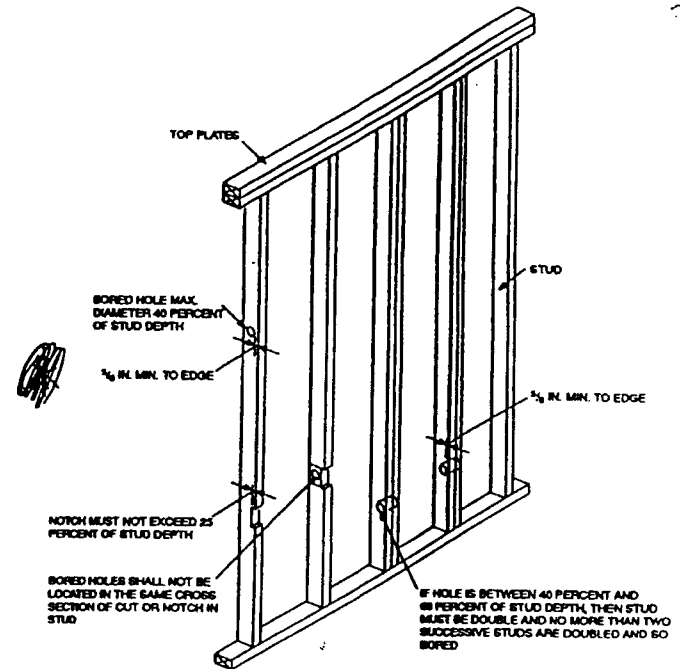
# Drilling & Notching

## Wood Wall Framing

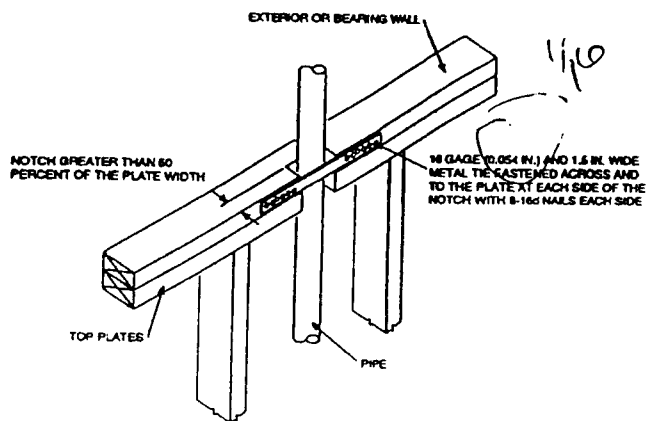
**R602.6 Drilling and notching—studs.** Drilling and notching of studs shall be in accordance with the following:

1. **Notching.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40 percent of a single stud width.
2. **Drilling.** Any stud may be bored or drilled, provided that the diameter of the resulting hole is no more than 60 percent of the stud width, the edge of the hole is no more than  $\frac{3}{8}$  inch (16 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior walls or bearing partitions drilled over 40 percent and up to 60 percent shall also be doubled with no more than two successive doubled studs bored. See Figures R602.6(1) and R602.6(2).

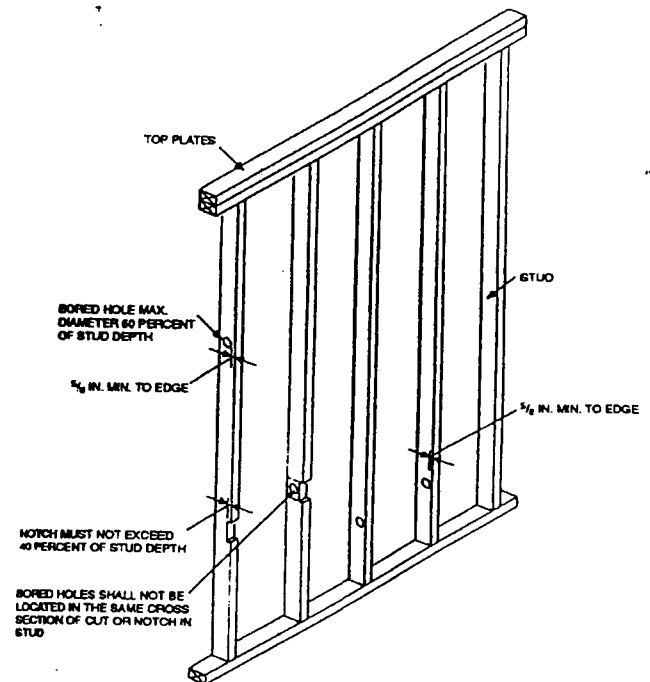
**Exception:** Use of approved stud shoes is permitted when they are installed in accordance with the manufacturer's recommendations.



**FIGURE R602.6(1)**  
**EXTERIOR WALLS & BEARING WALLS**



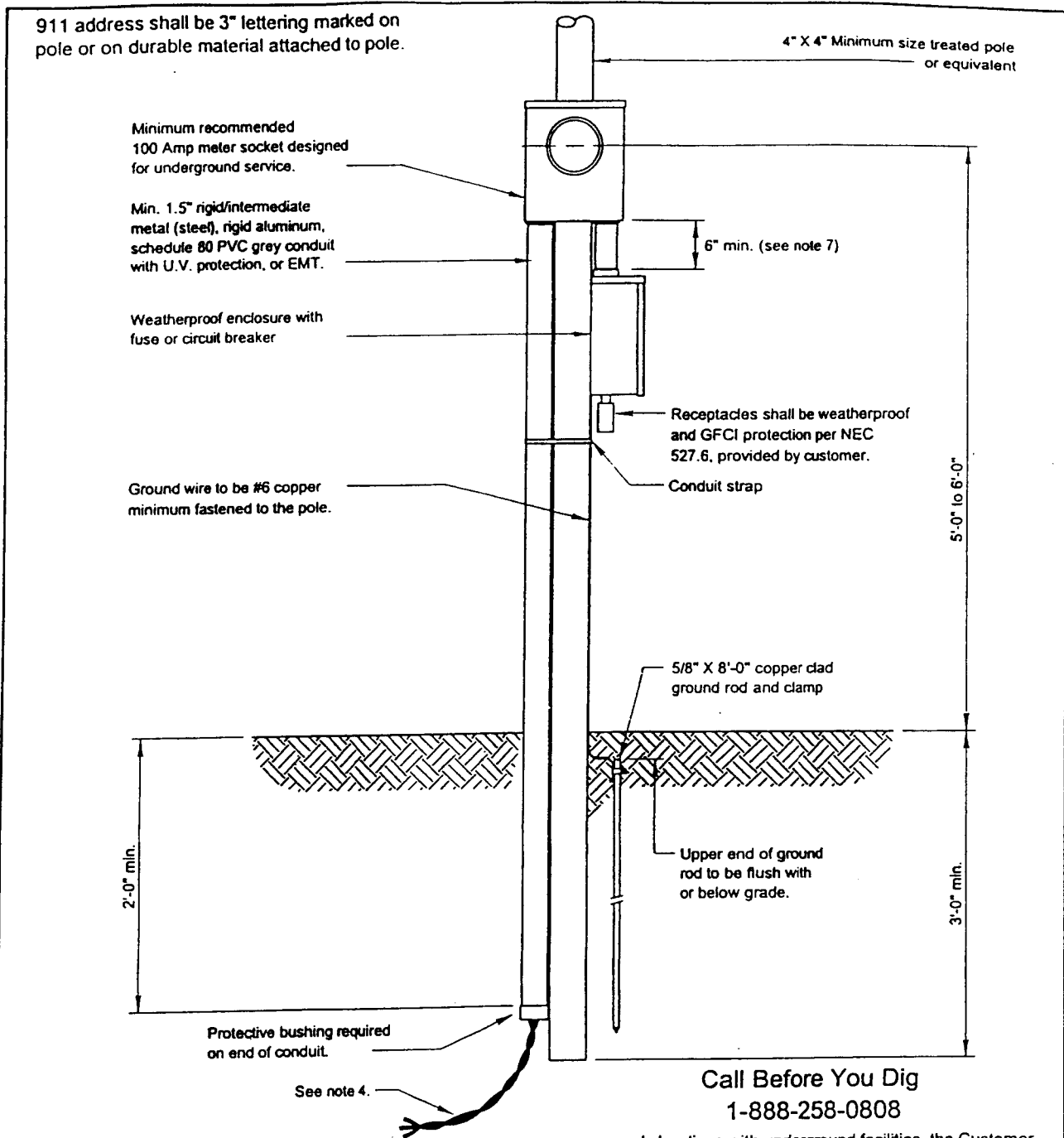
**FIGURE R602.6.1**  
**PIPING THROUGH TOP PLATE**



**FIGURE R602.6(2)**  
**INTERIOR NON-BEARING WALLS**

# Entergy Packet

IF THIS ADDRESS IS ON THE BUILDING PERMIT NAILED TO THE METER LOOP POLE THEN THIS IS SUFFICIENT FOR THE POSTED 911 ADDRESS.



Call Before You Dig  
1-888-258-0808

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

**NOTES:**

1. Customer facilities shall comply with the National Electrical Code and authorities having jurisdiction.
2. Customer provides minimum wire size of #6 copper or #4 aluminum.
3. All conduit connections to be raintight.
4. Service wire suitable for direct burial to be furnished, installed and maintained by customer. Customer to tail out enough service wire to reach inside of pedestal or transformer.
5. Customer to trench to within 12" of pedestal or transformer. **Minimum** depth of trench 24".
6. Location of underground cables shall be identified prior to digging.
- \*7. If the conduit between the meter socket and the main disconnect is PVC, a bonding ground is required. If metal, use locknut and washer (See section 11.10 for more information).

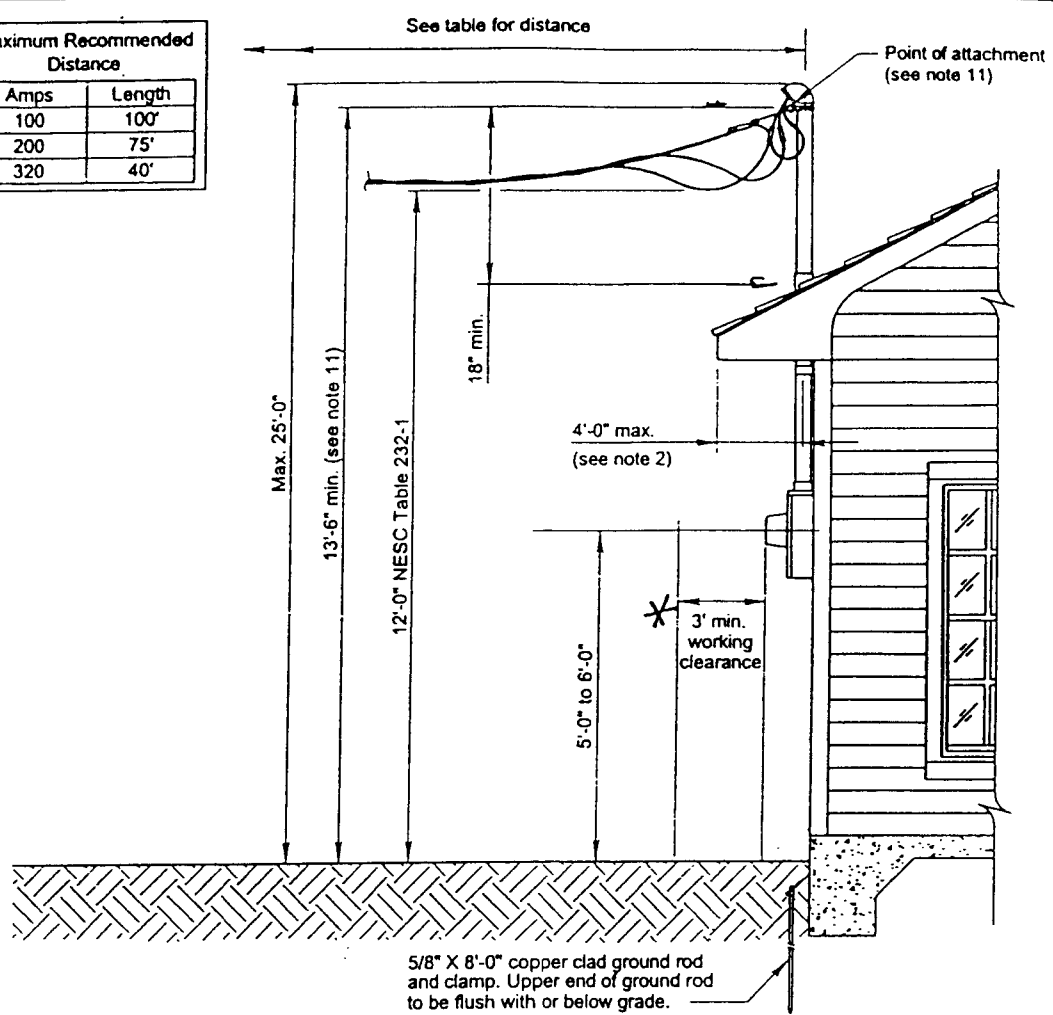
NO	DATE	REVISION	BY	APPR
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTION GROUP RECOMMENDATIONS	MCC	

<b>ENTERGY SERVICES, INC.</b>	
<b>TEMPORARY SERVICE FROM AN UNDERGROUND SOURCE</b>	
APPROVED BY: JDS	DATE: April 1998
CHECKED BY: LKE	SCALE: None
DRAWN BY: WINK-AJC	
No. SS4.5-2	
PLOT 1=1	SH. 1 OF 1



THE GROUND WIRE FROM THE METERING EQUIPMENT TO THE GROUND ROD -  
 MUST BE VISIBLE ON OUTSIDE OF BRICKS OR O/S WALL.

Maximum Recommended Distance	
Amps	Length
100	100'
200	75'
320	40'



**NOTES:**

- Customer facilities shall comply with the National Electrical Code and authorities having jurisdiction.
- Distance from fascia to center of mast to be 4'-0" max. NEC 230.29.
- Buildings or other facilities shall not be constructed under existing company supply lines, nor shall any company supply lines pass over existing buildings or facilities.
- Only rigid metal or IMC conduit can be used above the roof.
- A minimum of 3'-0" of each conductor shall extend from the top of the service mast. The neutral shall be marked with white tape at both ends. Neutral can be bare.
- Customer shall supply and install point of attachment.
- Main breaker should be within 2'-0" of meter. Outside wall is recommended.
- Guying or bracing may be required.
- Customer shall install meter socket.
- Additional height may be required to maintain clearance. Point of attachment can be no higher than 25'.
- No telephone or cable attachment allowed on mast. NEC 230.28.
- Minimum 3 ft. clearance between electric meter and gas meter.
- Ground wire shall be attached to wall.
- Any Service greater than 200 amps, consult the Company.

**Call Before You Dig**  
**1-888-258-0808**

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

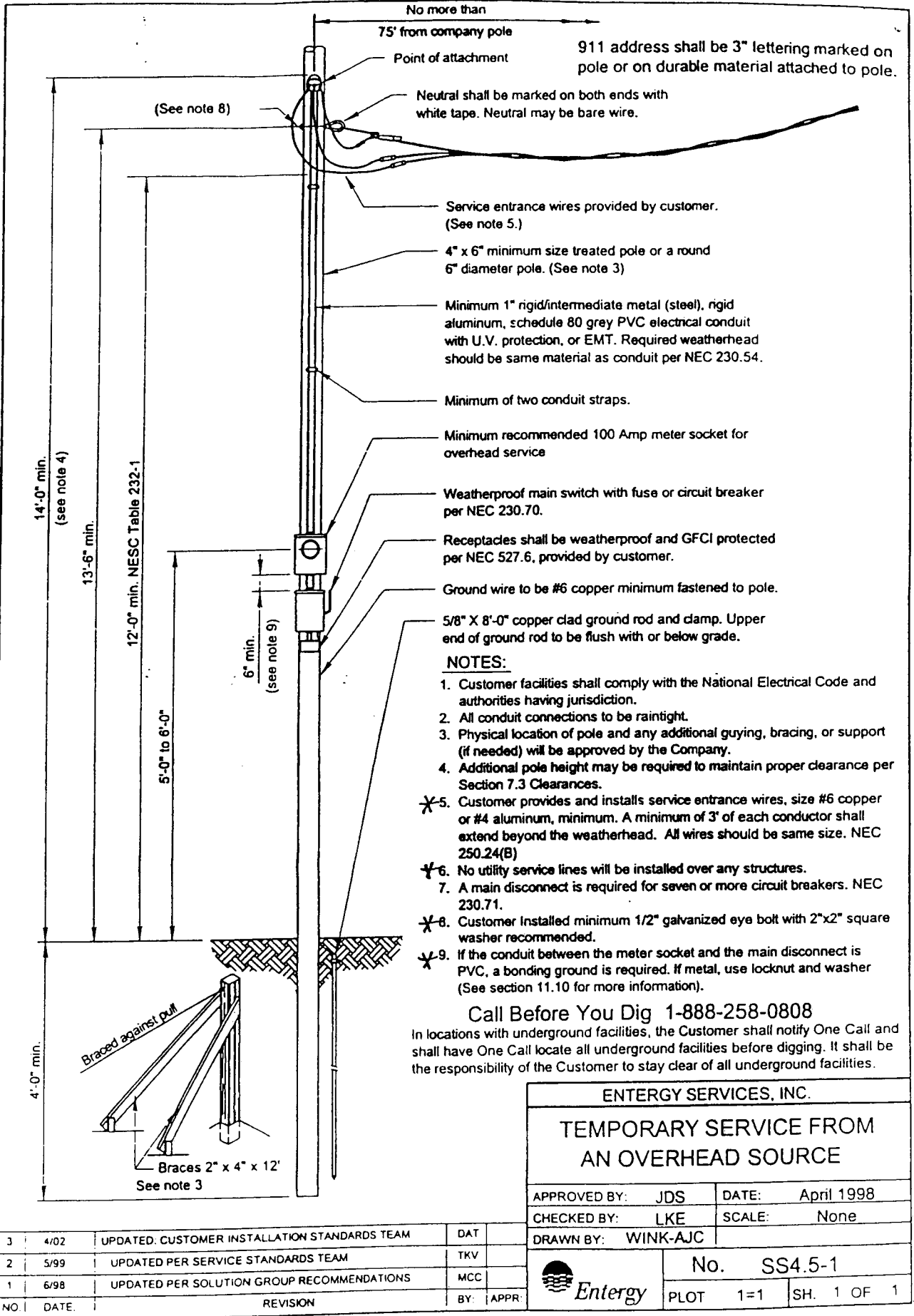
**CUSTOMER INSTALLATION MINIMUM WIRING SIZE FOR SINGLE FAMILY DWELLING**

METER SIZE	CONDUIT SIZE	ALUMINUM (INSULATION PER NEC)	COPPER (INSULATION PER NEC)	NEUTRAL WIRE SIZE	GROUND WIRE SIZE
100 Amp	2"	#2	#4	same as phase	#6 Cu
200 Amp	2"	4/0	2/0	same as phase	#4 Cu
320 Amp	3"	500 kcm	350 kcm	see NEC	#2 Cu

NO.	DATE:	REVISION	BY:	APPR:
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM		DAT
2	5/99	UPDATED PER SERVICE STANDARDS TEAM		TKV
1	6/98	UPDATED PER SOLUTION GROUP RECOMMENDATIONS		MCC


<b>ENTERGY SERVICES, INC.</b> <b>TYPICAL PERMANENT OVERHEAD</b> <b>RESIDENTIAL SERVICE #2</b>	
APPROVED BY: JDS	DATE: April 1998
CHECKED BY: LKE	SCALE: None
DRAWN BY: WINK-AJC	
<b>No. SS7.1-2</b>	
PLOT 1=1	SH. 1 OF 1

IF the customer's ADDRESS IS on the BUILDING PERMIT & this PERMIT IS NAILED to the meter Loop Pole - That's OK.



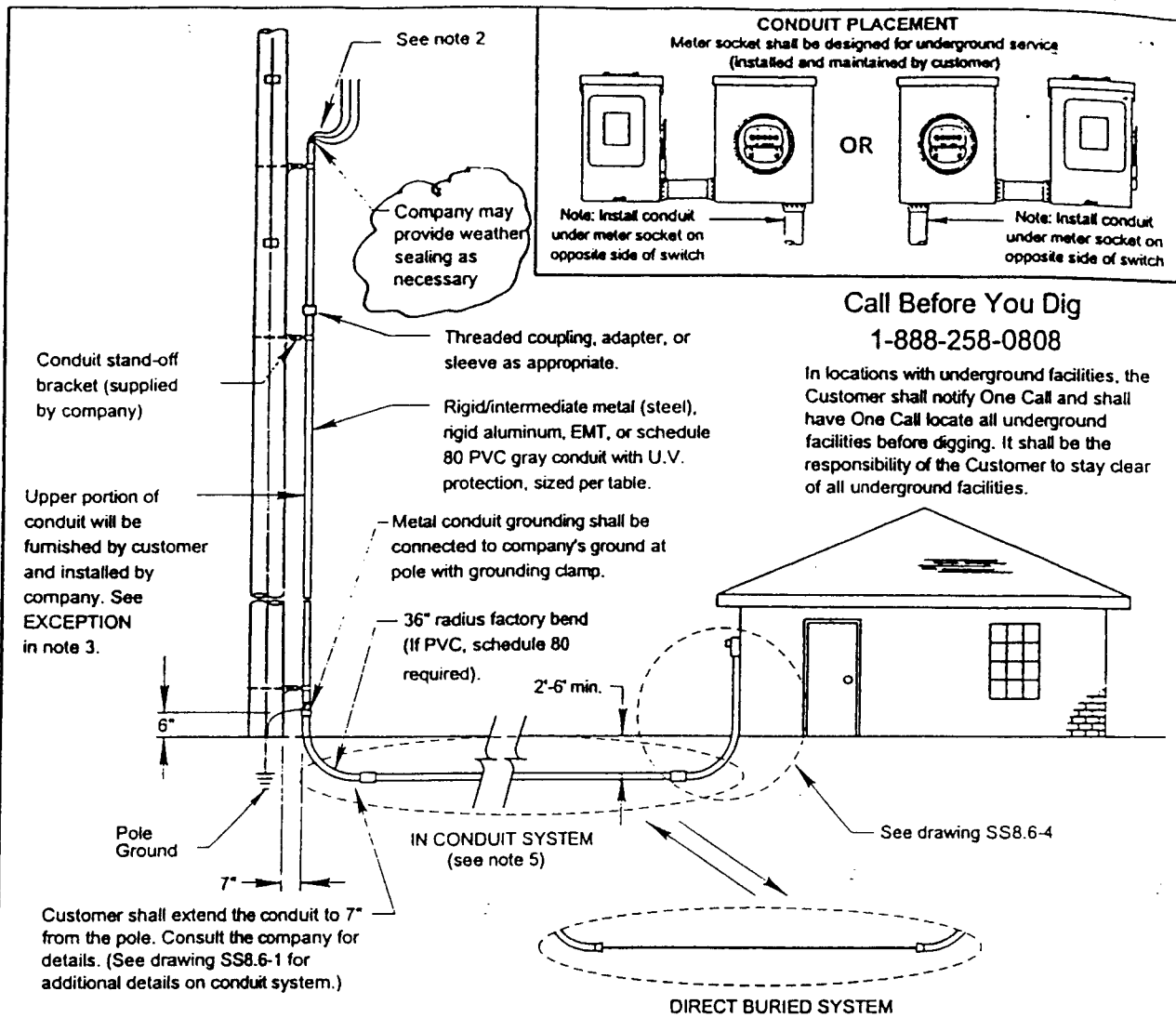
- NOTES:**
1. Customer facilities shall comply with the National Electrical Code and authorities having jurisdiction.
  2. All conduit connections to be raintight.
  3. Physical location of pole and any additional guying, bracing, or support (if needed) will be approved by the Company.
  4. Additional pole height may be required to maintain proper clearance per Section 7.3 Clearances.
  - \*5. Customer provides and installs service entrance wires, size #6 copper or #4 aluminum, minimum. A minimum of 3' of each conductor shall extend beyond the weatherhead. All wires should be same size. NEC 250.24(B)
  - \*6. No utility service lines will be installed over any structures.
  7. A main disconnect is required for seven or more circuit breakers. NEC 230.71.
  - \*8. Customer Installed minimum 1/2" galvanized eye bolt with 2"x2" square washer recommended.
  - \*9. If the conduit between the meter socket and the main disconnect is PVC, a bonding ground is required. If metal, use locknut and washer (See section 11.10 for more information).

Call Before You Dig 1-888-258-0808  
 In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

ENTERGY SERVICES, INC.	
<b>TEMPORARY SERVICE FROM AN OVERHEAD SOURCE</b>	
APPROVED BY: JDS	DATE: April 1998
CHECKED BY: LKE	SCALE: None
DRAWN BY: WINK-AJC	
No. SS4.5-1	
	
PLOT 1=1	SH. 1 OF 1

NO.	DATE	REVISION	BY	APPR
3	4/02	UPDATED. CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTION GROUP RECOMMENDATIONS	MCC	

NO WEATHER HEAD IS REQUIRED. A CUSTOMER CAN INSTALL THEIR OWN CONDUCTOR. THRU THE CONDUIT. ON INSIDE OF METER PAN - MARK IC FOR SERVICE INSTALLED IN CONDUIT OR DB FOR DIRECT BURIAL.



Call Before You Dig  
1-888-258-0808

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

The GR. WIRE FROM metering EQUIPMENT to the GR. ROD MUST be ON exterior of outside wall. - It must be VISIBLE

**Notes:**

1. Customer facilities shall comply with the National Electrical Code and authorities having jurisdiction.
2. See sec. 8.6.4 & 10.2.1 for information on multiple conduit installations on company poles.
- \*3. The company will install the customer supplied riser material up the pole. The customer shall supply enough conduit to extend up the pole to a point 50" above the Telephone Co.'s and/or Cable TV Co.'s cable. When these minimum conditions cannot be satisfied, the Customer shall consult the Company. The customer shall secure the riser material at the meter entrance for installation by the company. (EXCEPTION: In Arkansas the conduit is supplied per the filed rate)
- \*4. The customer shall install 80lb. test non-metallic (manilla or grass) pull line in the conduit. Conductors normally supplied by Company.
5. Consult a Company Representative for required system in your area.

SERVICE ENTRANCE MINIMUM WIRE SIZE FOR SINGLE FAMILY DWELLING

METER SIZE	CONDUIT SIZE	ALUMINUM (INSULATION PER NEC)	COPPER (INSULATION PER NEC)	NEUTRAL WIRE SIZE	GROUND WIRE SIZE
100 Amp	2"	#2	#4	same as phase	#6 Cu
200 Amp	2.5"	4/0	2/0	same as phase	#4 Cu
200 Amp	2.5"	4/0	2/0	same as phase	#4 Cu
320 Amp	3"	500 kcm	350 kcm	see NEC	#2 Cu

\* ARKANSAS ONLY

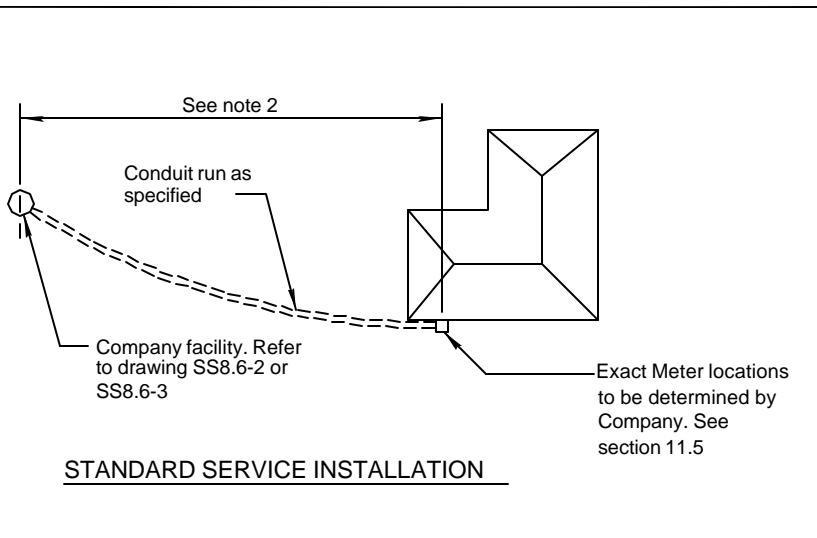
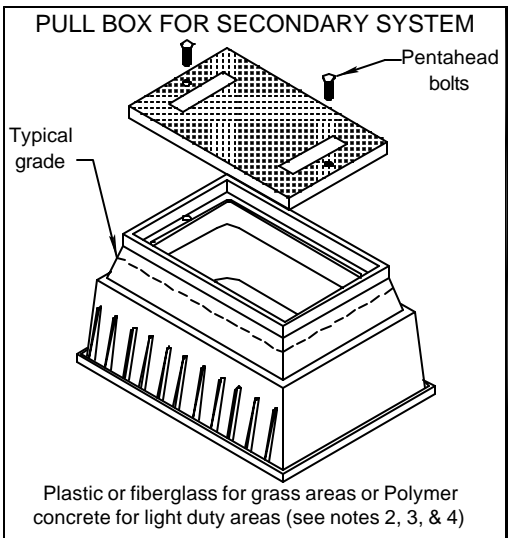
NO.	DATE:	REVISION	BY:	APPR:
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTIONS GROUP RECOMMENDATIONS	MCC	

**ENTERGY SERVICES, INC.**

**TYPICAL SINGLE PHASE RESIDENTIAL UNDERGROUND SERVICE FROM OVERHEAD SOURCE**

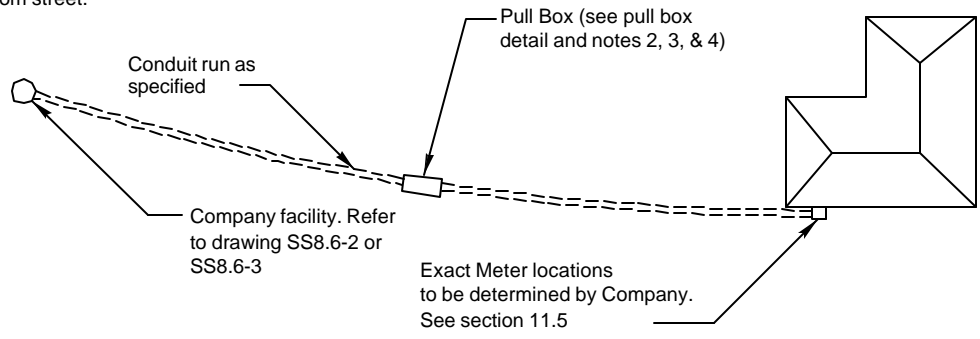
APPROVED BY: JDS	DATE: April 1998
CHECKED BY: LKE	SCALE: NONE
DRAWN BY: WINK-AJC	
No. SS8.6-3	
PLOT 1=1 SH. 1 OF 1	

**Entergy**



**STANDARD SERVICE INSTALLATION**

911 address shall be a minimum 3" lettering marked on structure, or meter enclosure and should be visible from street.



**STANDARD SERVICE INSTALLATION WITH PULL BOX**

**Notes:**

1. Customer facilities shall comply with Company Standards, the NEC, and authorities having jurisdiction.
2. Customer shall consult with company for location and type of pull box for any length over 200'.
3. If more than three 90° bends (including riser bends and regardless of length) are required in any run, consult the company.
4. Pull box shall be installed at a 90° bend or the center of run and be of sufficient strength to support probable local traffic (consult Company for box in areas with traffic or trucks driving over boxes). Recommended size: 17" W X 30" L X 18" D.
5. The Customer shall bear the cost of conduit and its installation.
6. See table for conduit diameter.
7. The customer shall install 80lb non-metallic (manila or grass) pull line or bull tape in the conduit. Conductor normally supplied by Company.
8. Underground service conduit shall be separated from telephone, cable, or water facilities by not less than 3" of concrete, 4" of brick masonry, or 12" of well tamped earth and 18" of well tamped earth for gas facilities (NESC 320.B.2 and NESC 354.A.2).
9. Conduit shall bear the U.L. label, either rigid nonmetallic (schedule 80 PVC above ground, schedule 40 below grade, gray only) or rigid /intermediate metal conduit (aluminum not permitted below grade). If metal conduit is used below grade, corrosion protection shall be provided.
10. Conduit required in restricted areas.
11. Additional details are found in other drawings SS8.6-2, SS8.6-3, SS8.6-4 and SS8.6-5.

CONDUIT SIZE REQUIRED	
TRIPLEX CONDUCTOR SIZE (AWG)	CONDUIT DIAMETER
1/0 4/0	2.5"
1/0 4/0*	2" Arkansas only
350 kcm	3"

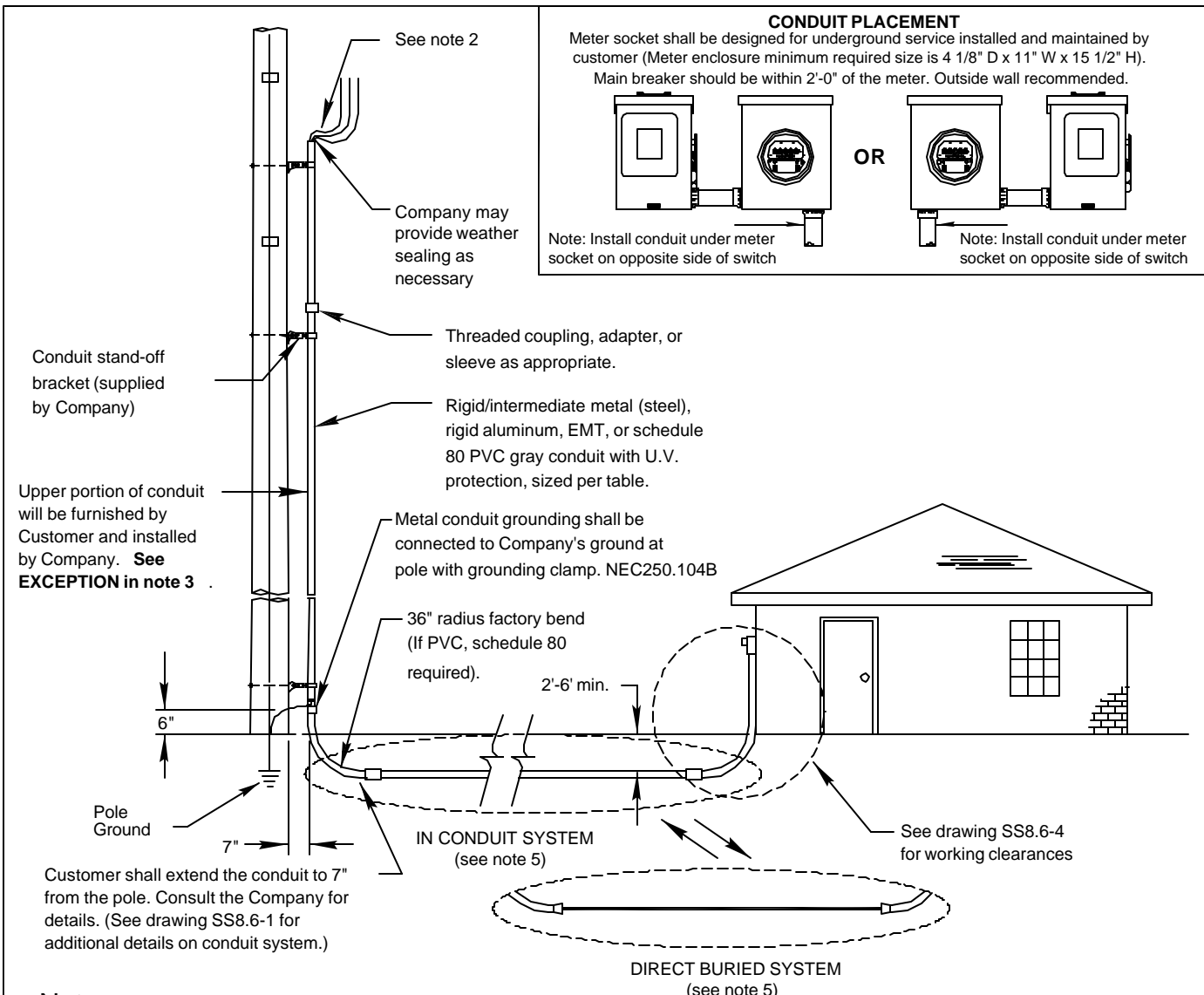
\* ARKANSAS ONLY

**Call 48 Hours Before You Dig  
1-888-258-0808**

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

<b>ENTERGY SERVICES, INC.</b>	
<b>TYPICAL CONDUIT SYSTEM REQUIREMENTS FOR SINGLE PHASE CUSTOMER UNDERGROUND SERVICE</b>	
APPROVED BY: <b>JDS</b>	DATE: <b>April 1998</b>
CHECKED BY: <b>LKE</b>	SCALE: <b>NONE</b>
DRAWN BY: <b>WINK-AJC</b>	
<b>No. SS8.6-1</b>	
<b>PLOT 1=1 SH. 1 OF 1</b>	

NO.	DATE:	REVISION	BY:	APPR:
4	2/05	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTIONS GROUP RECOMMENDATIONS	MCC	



**Notes:**

1. Customer facilities shall comply with Company Standards, the National Electrical Code, and authorities having jurisdiction.
2. See sec. 8.6.4 & 10.2.1 for information on multiple conduit installations on Company poles.
3. The Company will install the Customer supplied riser material up the pole. The Customer shall supply enough conduit to extend up the pole to a point 50" above the Telephone Co.'s and/or Cable TV Co.'s cable. When these minimum conditions cannot be satisfied, the Customer shall consult the Company. The Customer shall secure the riser material at the meter entrance for installation by the Company. **(EXCEPTION: In Arkansas the conduit for the riser is supplied by the Company )**
4. The Customer shall install 80lb. non-metallic (manilla or grass) pull line or bull tape in the conduit. Conductors normally supplied by Company.
5. Consult a Company Representative for required system in your area.

METER SIZE	CONDUIT SIZE	Current carrying & neutral wire size (per NEC)		GROUND WIRE SIZE
		ALUMINUM	COPPER	
100 Amp	2"	#2	#4	#6 *
200 Amp	2.5" ***	4/0	2/0	#4 **
320 Amp	3"	Consult NEC		

See NEC 310.15(B) (6) - phase conductors: NEC 220.61 - Neutral, and NEC 250.66 - Ground Wire  
 \* Wire smaller than #6 must be protected from physical damage (see NEC 250.120C)  
 \*\* For sole connection to rod, plate or pipe type electrode #6 AWG Cu is allowed (see NEC250.66A)  
 \*\*\* Arkansas locations only allows 2"

5	3/08	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
4	2/05	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTIONS GROUP RECOMMENDATIONS	MCC	
NO.	DATE:	REVISION	BY:	APPR:

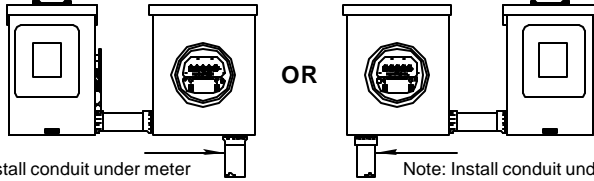
**Call 48 Hours Before You Dig**  
**1-888-258-0808**

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

<b>ENTERGY SERVICES, INC.</b>			
<b>TYPICAL SINGLE PHASE RESIDENTIAL UNDERGROUND SERVICE FROM OVERHEAD SOURCE</b>			
APPROVED BY:	JDS	DATE:	April 1998
CHECKED BY:	LKE	SCALE:	NONE
DRAWN BY:	WINK-AJC		
		<b>No. SS8.6-3</b>	
PLOT	1=1	SH.	1 OF 1

**CONDUIT PLACEMENT**

Meter socket shall be designed for underground service installed and maintained by customer (Meter enclosure minimum required size is 4 1/8" D x 11" W x 15 1/2" H).  
Main breaker should be within 2'-0" of the meter. Outside wall recommended.



Note: Install conduit under meter socket on opposite side of switch

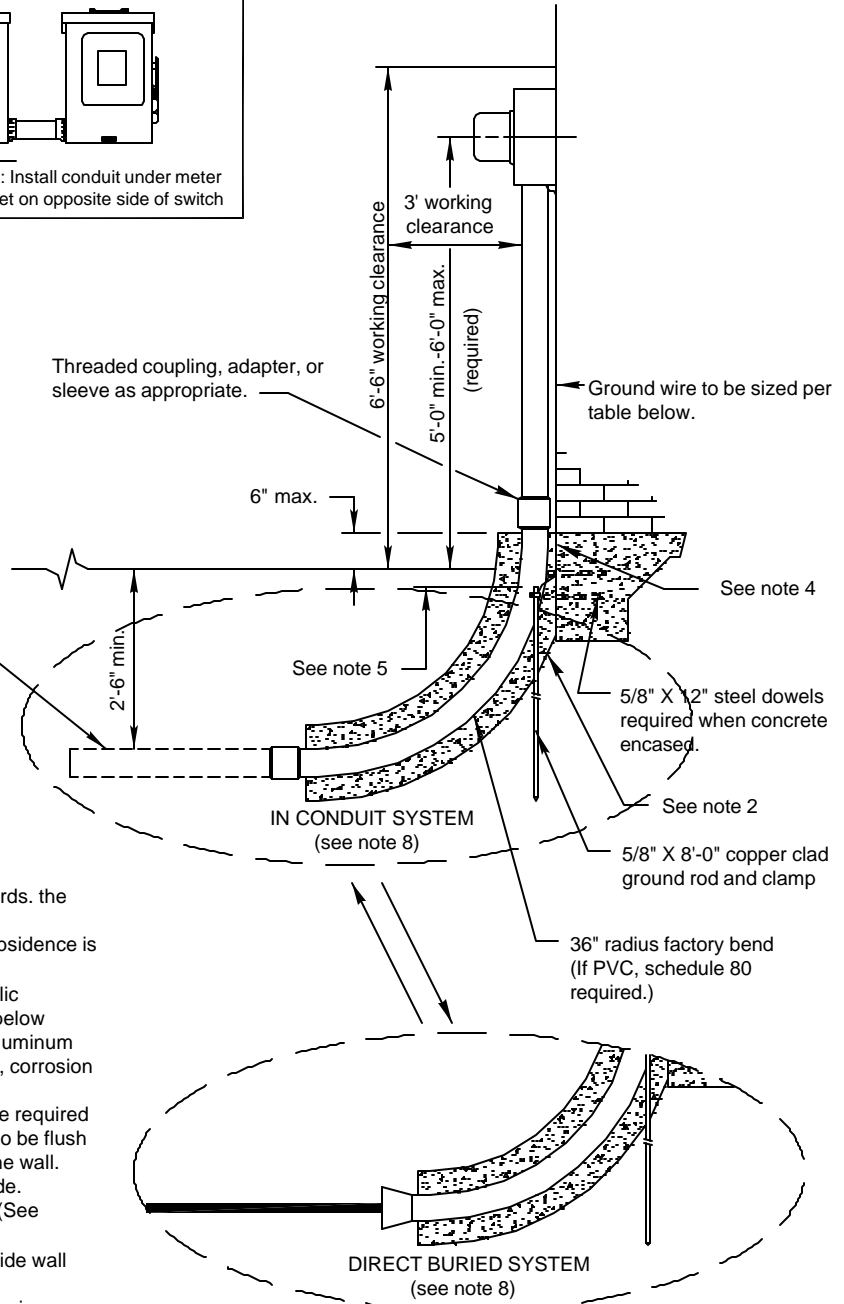
Note: Install conduit under meter socket on opposite side of switch

**Call 48 Hours Before You Dig**  
**1-888-258-0808**

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

When installing conduit system, Customer shall extend conduit to pole or underground system. Consult the Company for details. (See drawings SS8.6-2 and SS8.6-3)

Threaded coupling, adapter, or sleeve as appropriate.



**Notes:**

1. Customer facilities shall comply with Company Standards, the NEC, and authorities having jurisdiction.
2. Concrete encasing on elbow is required where soil subsidence is possible, consult with Company.
3. Conduit shall bear the U.L. label, either rigid nonmetallic (schedule 80 PVC above ground and schedule 40 PVC below ground, grey only) or rigid/intermediate metal conduit (aluminum not permitted below ground line). If metal conduit is used, corrosion protection shall be provided.
4. Conduit shall be flush with wall. The foundation may be required to have blocked out area for conduit in order for conduit to be flush with wall when installed. Conduit is not allowed behind the wall.
5. Upper end of ground rod to be flush with or below grade.
6. Conduit required in restricted access or paved areas. (See section 8.6.1)
7. Main breaker should be within 2'-0" of the meter. Outside wall recommended.
8. Consult a Company Representative for required system in your area.

**Minimum Customer Wiring Size - Family Residence Single Phase**

METER SIZE	CONDUIT SIZE	Current carrying & neutral wire size (per NEC)		GROUND WIRE SIZE
		ALUMINUM	COPPER	
100 Amp	2"	#2	#4	#6 *
200 Amp	2.5" ***	4/0	2/0	#4 **
320 Amp	3"	Consult NEC		

See NEC 310.15(B) (6) - phase conductors: NEC 220.61 - Neutral, and NEC 250.66 - Ground Wire

\* Wire smaller than #6 must be protected from physical damage (see NEC 250.120C)

\*\* For sole connection to rod, plate or pipe type electrode #6 AWG Cu is allowed (see NEC250.66A)

\*\*\* Arkansas locations only allows 2"

NO.	DATE:	REVISION	BY:	APPR:
4	3/08	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
4	2/05	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
3	4/02	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
2	5/99	UPDATED PER SERVICE STANDARDS TEAM	TKV	
1	6/98	UPDATED PER SOLUTION GROUP RECOMMENDATIONS	MCC	

**ENTERGY SERVICES, INC.**

**DETAILS FOR TYPICAL SINGLE PHASE RESIDENTIAL UNDERGROUND SERVICE AT HOUSE**

APPROVED BY: JDS DATE: April 1998

CHECKED BY: LKE SCALE: NONE

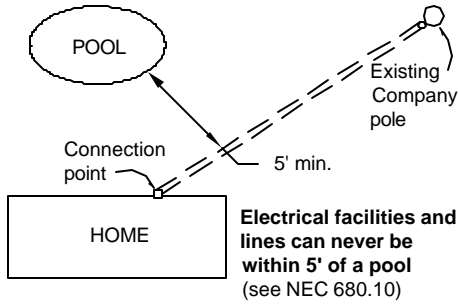
DRAWN BY: WINK-AJC



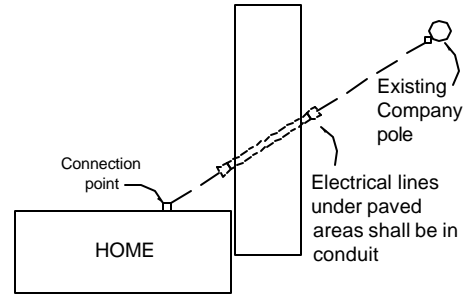
No. SS8.6-4

PLOT 1=1 SH. 1 OF 1

### UNDERGROUND CLEARANCE FOR SWIMMING POOL

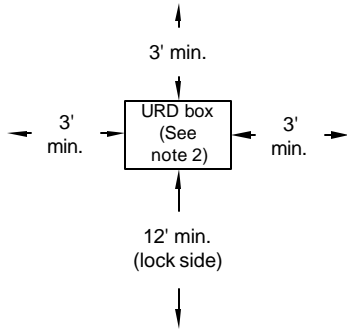


### UNDERGROUND REQUIREMENTS FOR PAVED AREAS

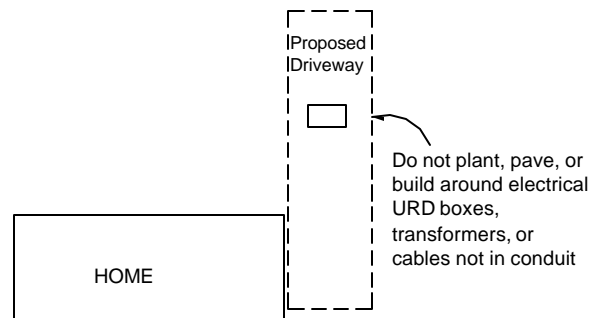


### UNDERGROUND FACILITIES CLEARANCES

From shrubs, trees, buildings, fences, decks etc.

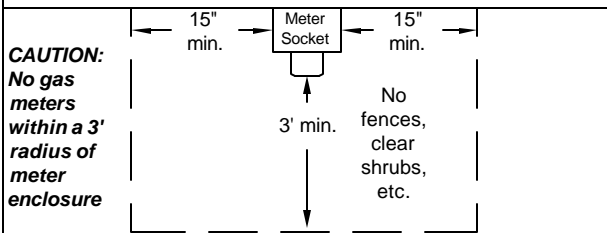


### DO NOT BLOCK ACCESS TO ELECTRICAL FACILITIES



### METER CLEARANCES

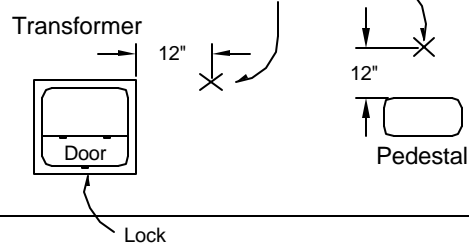
HOUSE



**CAUTION:**  
No gas meters within a 3' radius of meter enclosure

For residential service, the meter is to be located on the outside of the building on the side of the residence within three feet of the front wall and outside of the fences on the side most economical to reach the company's facilities.

Place temporary underground service wire here (underground 30" deep)



### Call 48 Hours Before You Dig 1-888-258-0808

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.

Notes:

1. The customer is responsible for clearing and maintaining all right of way.
2. Transformers must meet requirements of drawing SS10.1-1

2	3/08	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
1	2/05	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT	
NO.	DATE:	REVISION	BY:	APPR:

ENTERGY SERVICES, INC.

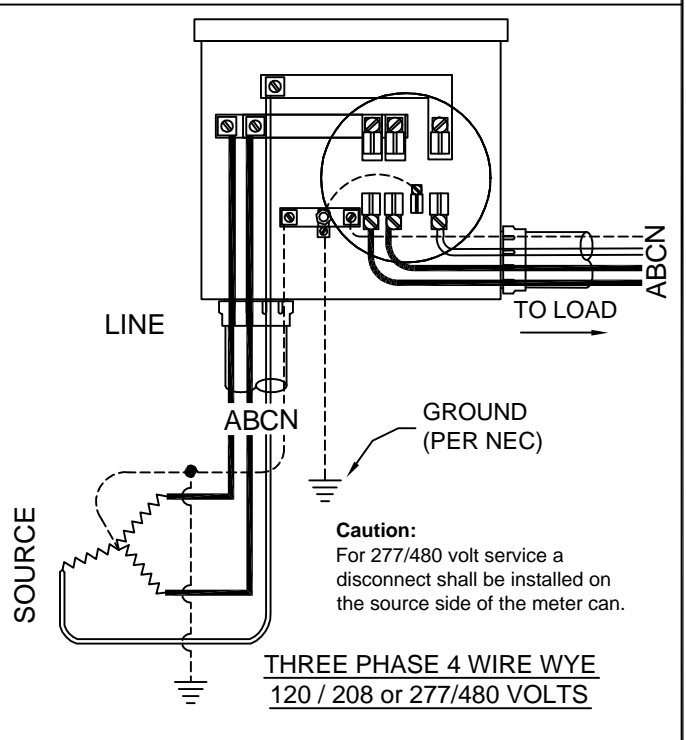
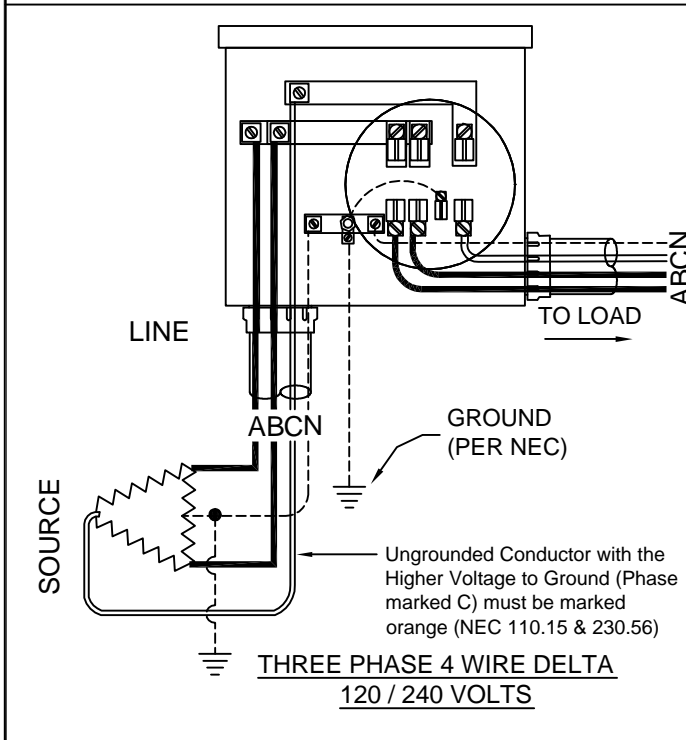
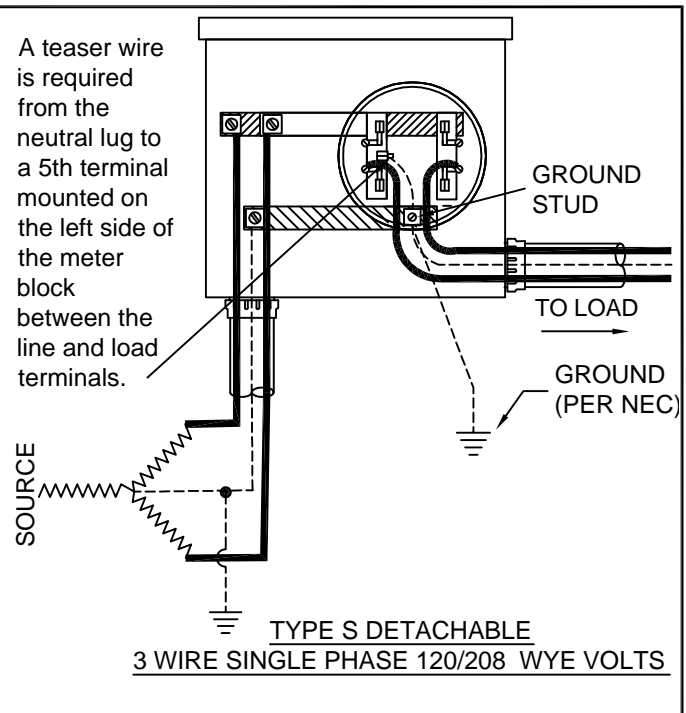
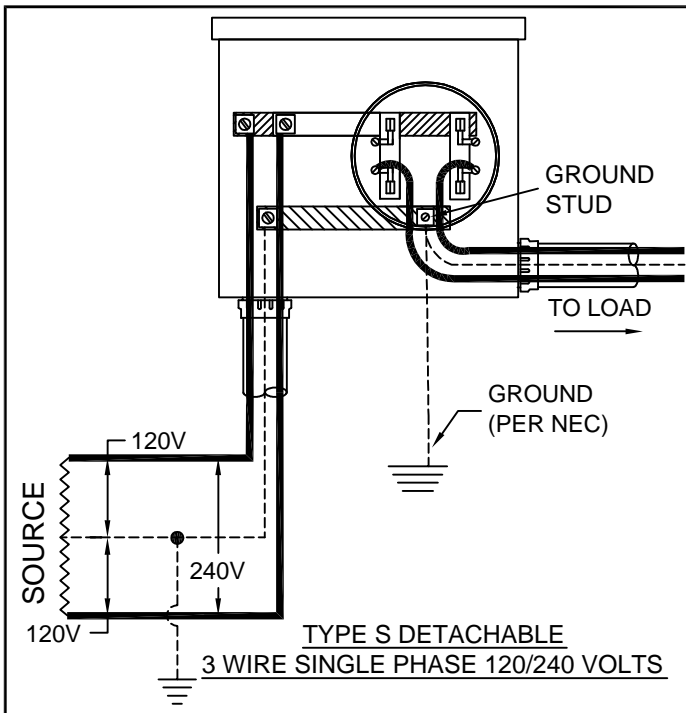
### Underground Service Installation Details & Clearances

APPROVED BY:	JRH	DATE:	April 2002
CHECKED BY:	LKE	SCALE:	None
DRAWN BY:	DAT		



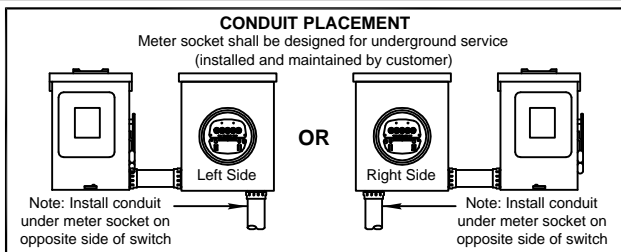
No. SS8.6-6

PLOT 1=1 SH. 1 OF 1



**Notes:**

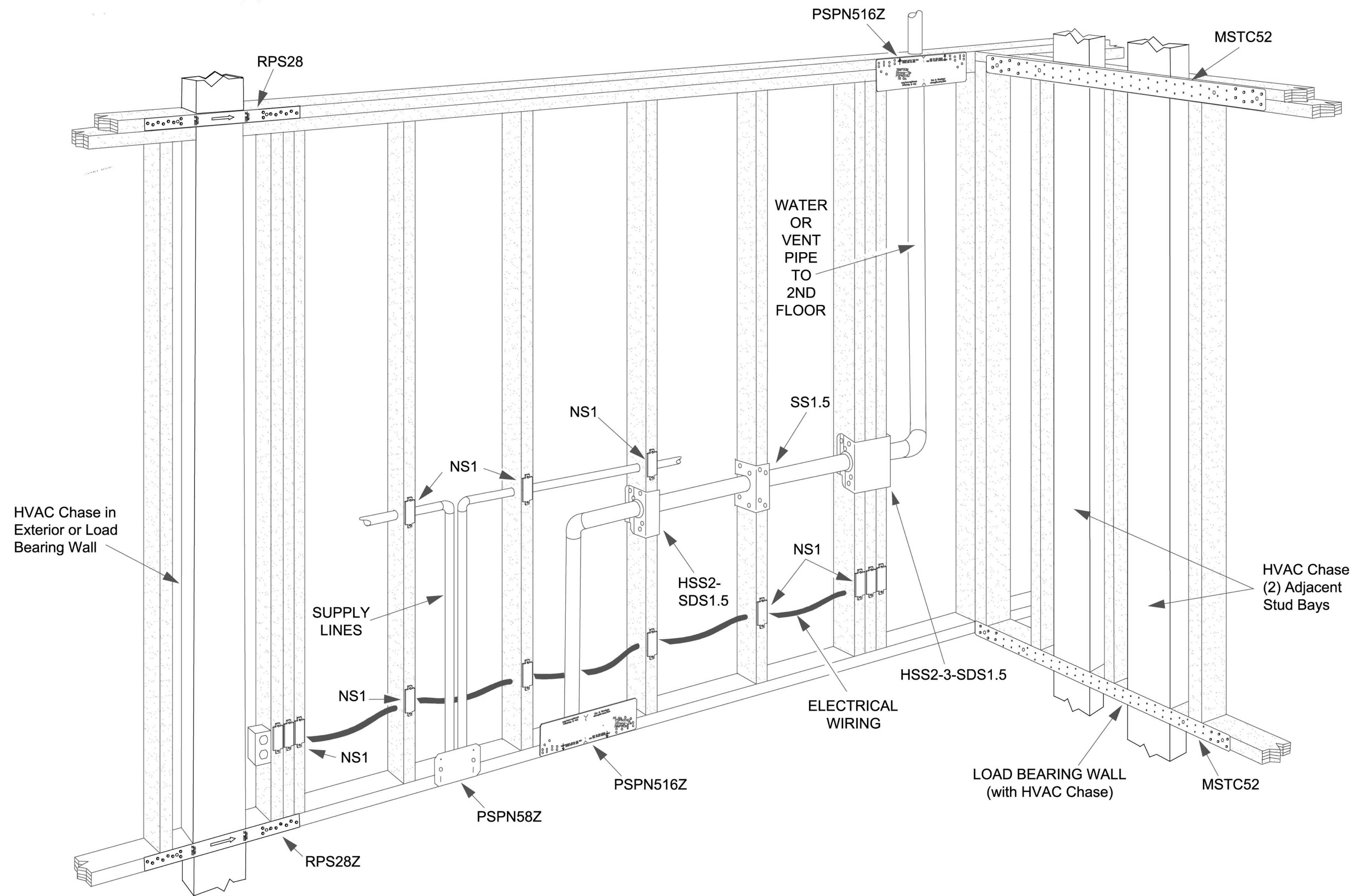
1. All diagrams on this drawing show connections when the switch is installed on the right side (see Right Side below) of the meter socket. If the switch is installed on the left side of the meter socket you will need to mirror this diagram (see Left Side below).
2. All sockets, except residential single phase less than 320 Amps, shall have a manual mechanical gang operated bypass switch.
3. Load and supply wires shall not cross in the meter socket (11.1.2.7)



ENTERGY SERVICES, INC.			
WIRING DIAGRAM CONNECTIONS FOR UNDERGROUND SELF CONTAINED METERS			
APPROVED BY:	JRH	DATE:	APRIL 2005
CHECKED BY:	JED	SCALE:	NONE
DRAWN BY:	DAT		

1	3/08	UPDATED: CUSTOMER INSTALLATION STANDARDS TEAM	DAT
NO.	DATE:	REVISION	BY: APPR:

	No. SS11.8-2	
	PLOT 1=1	SH. 2 OF 2



ADDITION AREAS  
 LIVING 534 S.F.  
 COVERED 268 S.F.  
 UNDER ROOF 2,597 S.F.

TYP. PLUMBING WALL CONNECTIONS  
 N.T.S.