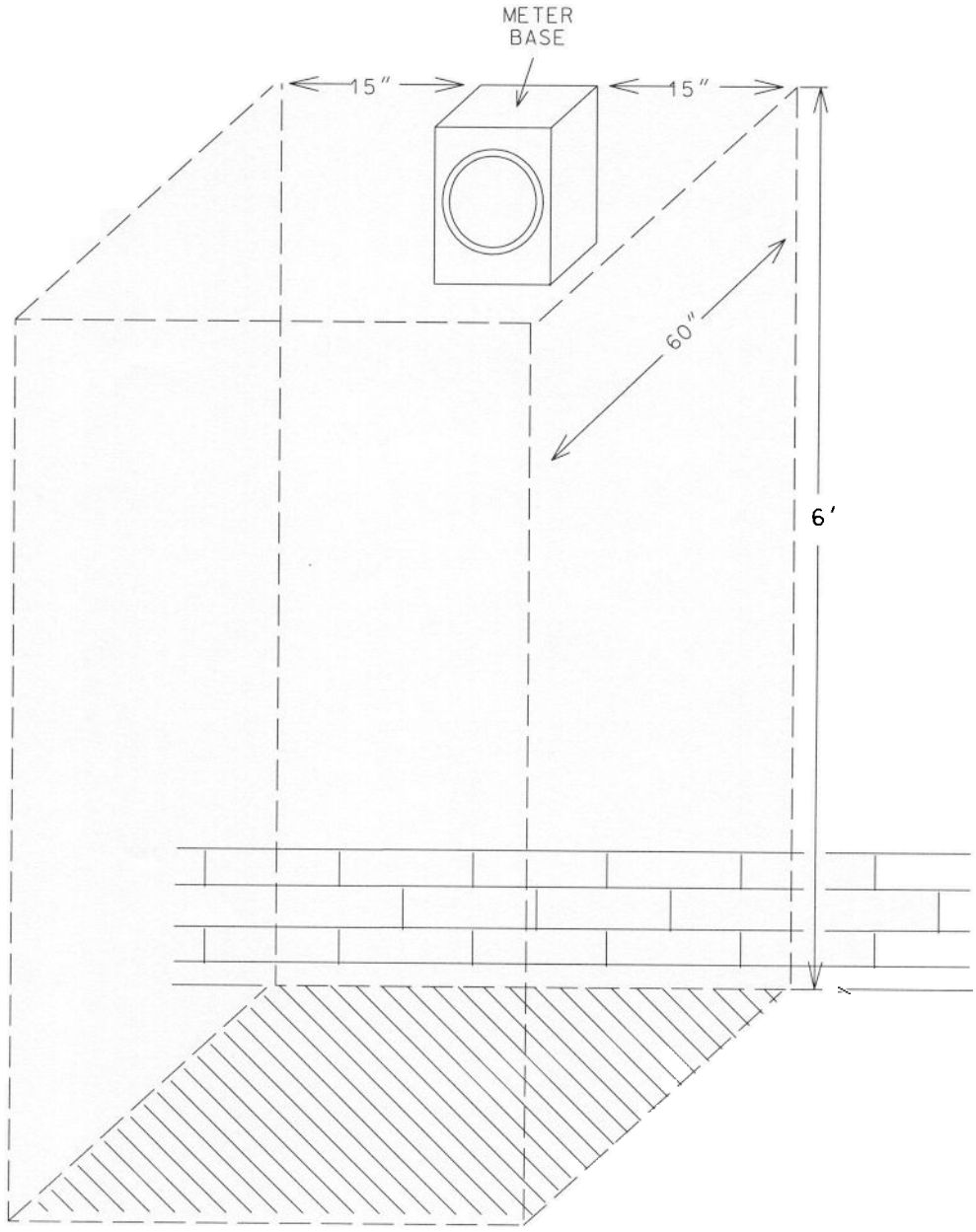
WORKING CLEARANCES

SUFFICIENT ACCESS AND WORKING SPACE (SHADED AREA) SHALL BE PROVIDED AND MAINTAINED ABOUT ALL METERING EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE OF SUCH EQUIPMENT. THE DIMENSION OF THE WORKING SPACE IN THE DIRECTION OF ACCESS TO LIVE PARTS OPERATING AT 600 VOLTS OR LESS AND LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT SERVICING, OR MAINTENANCE WHILE ALIVE SHALL NOT BE LESS THAN 30" WIDE IN FRONT OF THE ELECTRIC EQUIPMENT. IN NO CASE SHALL HEADROOM BE LESS THAN 7'.

PLEASE DO NOT INSTALL OR STORE EQUIPMENT, PLANTS, ETC. WITHIN WORKING SPACE.



POINT OF DELIVERY LOCATION

METER BASE LOCATION IS AN IMPORTANT CONSIDERATION TO BOTH THE COOPERATIVE AND THE MEMBER.

(A) OVERHEAD OR UNDERGROUND FACILITIES

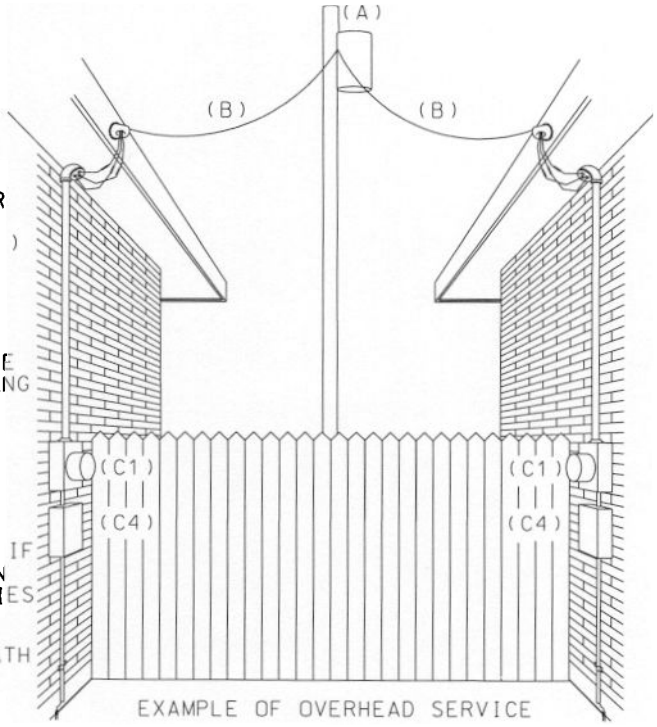
(B) SERVICE WIRE
SHALL NOT BE OVER OR UNDER BUILDINGS (RESIDENTIAL, COMMERCIAL BUILDINGS, ETC.)

(C) METER BASE
(1) REQUESTED LOCATION TO BE ACCESSIBLE TO M.V.E.C. PERSONNEL
(2) ALTERNATE LOCATION IN THE SHADED AREA UNDER OVERHANG
(3) BAD LOCATION FOR METER DUE TO TREE IN THE PATH OF SERVICE WIRE
(4) MEMBER DISCONNECT REQUESTED LOCATION

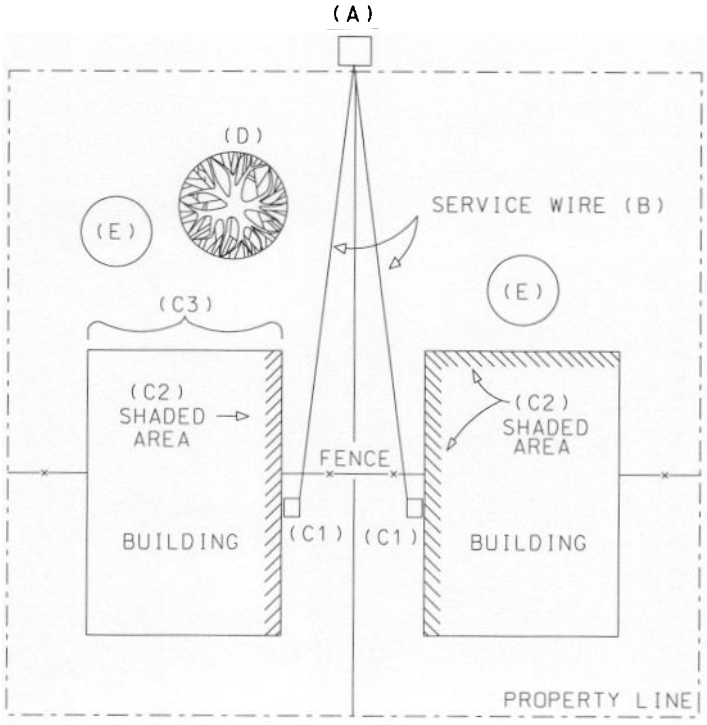
NOTE:
ADDITIONAL POLE MAY BE NEEDED IF METER LOCATION IS FURTHER THAN 80 FEET FROM OVERHEAD FACILITIES

(D) TREES
AVOID TREES IN OR UNDER PATH FROM THE SERVICE WIRE

(E) SEPTIC TANKS
IDENTIFY LOCATION OF BURIED SEPTIC TANKS FOR THE SAFETY OF M.V.E.C. PERSONNEL AND PREVENTION OF VEHICLE DAMAGE TO THE SEPTIC TANKS AND LINES



EXAMPLE OF OVERHEAD SERVICE



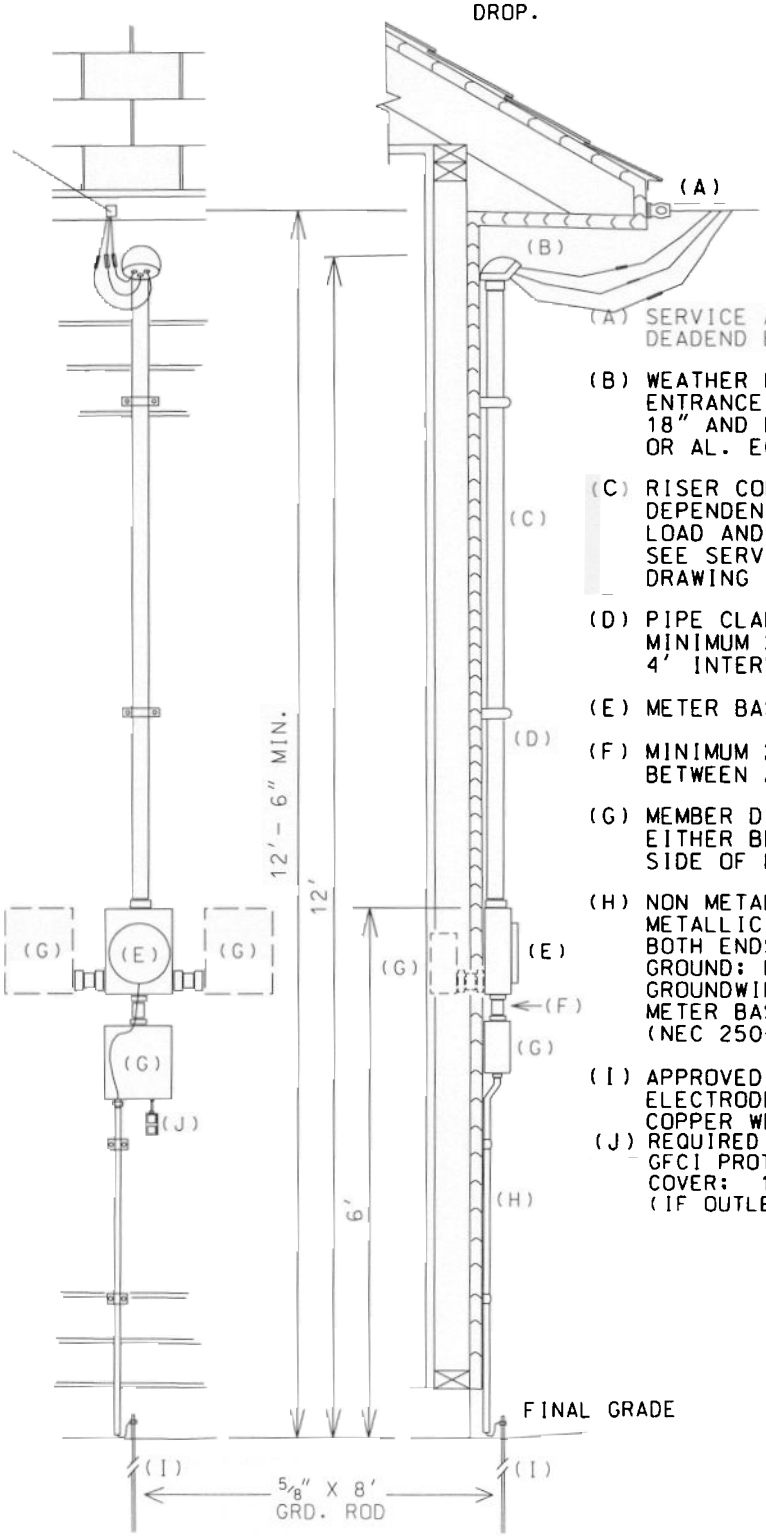
EXAMPLE OF TYPICAL SERVICE

OVERHEAD METER INSTALLATION

THE METHOD SHOWN SHOULD GENERALLY BE SATISFACTORY. THE MEMBER MUST CONSULT THE ARCHITECT, CONTRACTOR, OR ELECTRICIAN CONCERNING ELECTRICAL LOAD AND THE ABILTIY OF THE HOUSE TO SUPPORT TENSION OF SERVICE WIRE (MAX. 500 LBS. PER SERVICE) PROVIDE ELECTRICAL LOAD INFORMATION TO MVEC FOR PROPER ELECTRICAL SERVICE AND CONTACT MVEC ON LOCATION OF METER.

COOPERATIVE WILL: INSTALL SERVICE DROP.

MEMBER WILL: FURNISH & INSTALL METER BASE AND FURNISH AND INSTALL WEATHER HEAD, RISER, PIPE CLAMPS, AND OTHER REQUIRED MATERIALS. ALL BASES & DEVICES SHALL BE BONDED TO GROUND.



(A) SERVICE ATTACHMENT OR DEADEND BY MVEC

(B) WEATHER HEAD AND SERVICE ENTRANCE WIRE MINIMUM LENGTH 18" AND MINIMUM NO. 6 COPPER OR AL. EQUIVALENT

(C) RISER CONDUIT SIZE IS DEPENDENT UPON ELECTRICAL LOAD AND STRENGTH. ALSO SEE SERVICE ENTRANCE MAST DRAWING

(D) PIPE CLAMPS MINIMUM 2 EACH 4' INTERVALS

(E) METER BASE (SEE METER BASE)

(F) MINIMUM 2" CLEARANCE BETWEEN ALL ENCLOSURES

(G) MEMBER DISCONNECT LOCATION EITHER BELOW, BEHIND, OR SIDE OF METER BASE

(H) NON METALLIC CONDUIT: OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE - CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(I) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

(J) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER: 120 VOLTS OUTLET. (IF OUTLET IS INSTALLED)

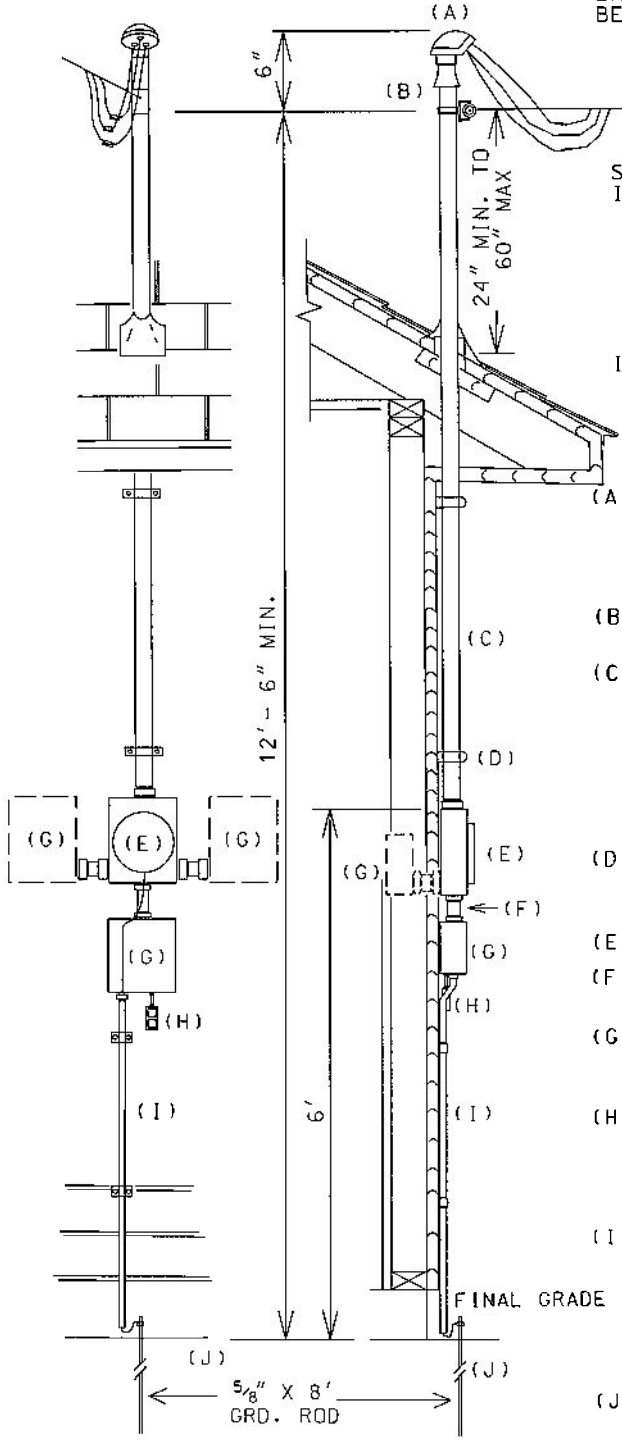
(2001)

SERVICE ENTRANCE MAST

THE METHOD SHOWN SHOULD GENERALLY BE SATISFACTORY. THE MEMBER MUST CONSULT THE ARCHITECT, CONTRACTOR, OR ELECTRICIAN CONCERNING ELECTRICAL LOAD AND THE ABILTIY OF THE HOUSE TO SUPPORT TENSION OF SERVICE WIRE (MAX. 500 LBS. PER SERVICE) PROVIDE ELECTRICAL LOAD INFORMATION TO MVEC FOR PROPER ELECTRICAL SERVICE AND CONTACT MVEC ON LOCATION OF METER

COOPERATIVE WILL:
FURNISH AND INSTALL METER AND SERVICE DROP.

MEMBER WILL:
FURNISH & INSTALL METER BASE AND FURNISH AND INSTALL WEATHER HEAD, RISER, PIPE CLAMPS, AND OTHER REQUIRED MATERIALS. ALL BASES & DEVICES SHALL BE BONDED TO GROUND.



SERVICE DROP TO ROOF CLEARANCE

I. 300 VOLTS OR LESS
   a. 36 INCH MINIMUM IF STANDARD 4" BY 12" ROOF SLOPE.
   b. 18 INCHES IF NO MORE THAN 4 FEET OF SERVICE DROP CONDUCTORS PASS ABOVE ROOF OVERHANG.

II. 300 VOLTS OR MORE
   a. 8 FEET CLEARANCE IS REQUIRED.

(A) WEATHER HEAD AND SERVICE ENTRANCE WIRE MINIMUM LENGTH 18" AND MINIMUM NO. 6 COPPER OR AL. EQUIVALENT

(B) SERVICE ATTACHMENT OR DEADEND BY MVEC

(C) RISER MINIMUM 2" RIGID STEEL EXPOSED CONDUIT WHEN MAST DOES NOT EXTEND MORE THAN 5' ABOVE ROOF AND SERVICE ENTRANCE DOES NOT EXCEED 200 AMPERE CAPACITY

(D) PIPE CLAMPS MINIMUM 2 EACH 4' INTERVALS

(E) METER BASE (SEE METER DETAIL)

(F) MINIMUM 2" CLEARANCE BETWEEN ALL ENCOSURES

(G) MEMBER DISCONNECT LOCATION EITHER BELOW, BEHIND, OR SIDE OF METER BASE

(H) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER; 120 VOLTS OUTLET, (IF OUTLET IS INSTALLED)

(I) NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUNDWIRE - CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(J) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

1 PHASE OR 3 PHASE SELF-CONTAINED UNDERGROUND METER INSTALLATION

COOPERATIVE WILL:
INSTALL METER SERVICE CABLE. CONNECTIONS INSIDE OF TRANSFORMER, SECONDARY OR DIP POLE ARE INSTALLED BY MVEC

NOTE: MVEC WILL DO THE WIRE INSTALLATION INSIDE THE TRANSFORMER, PEDESTAL OR FROM THE DIP POLE.

MEMBER WILL:
FURNISH & INSTALL METER BASE AND BOND IT TO GROUND. FURNISH AND INSTALL ALL REQUIRED MATERIALS.

NOTE:
ALL BASES AND DEVICES SHALL BE BONDED TO GROUND

TRENCH, BACKFILL, FURNISH AND INSTALL 2 1/2" CONDUIT (SCHEDULE 40 PVC)TO ACCOMMODATE 1/0 TO 350 MCM SERVICE FURNISH PULL STRING FROM THE METER AS REQUIRED TO THE UNDERGROUND TRANSFORMER, PEDESTAL OR DIP POLE.

(A) METER BASE (SEE METER BASE DETAIL)

(B) MEMBER DISCONNECT

(C) MINIMUM 2" CLEARANCE BETWEEN ALL ENCLOSURES. MINIMUM 200 AMPERE ENTRANCE

(D) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER: 120 VOLTS OUTLET. (IF OUTLET IS INSTALLED)

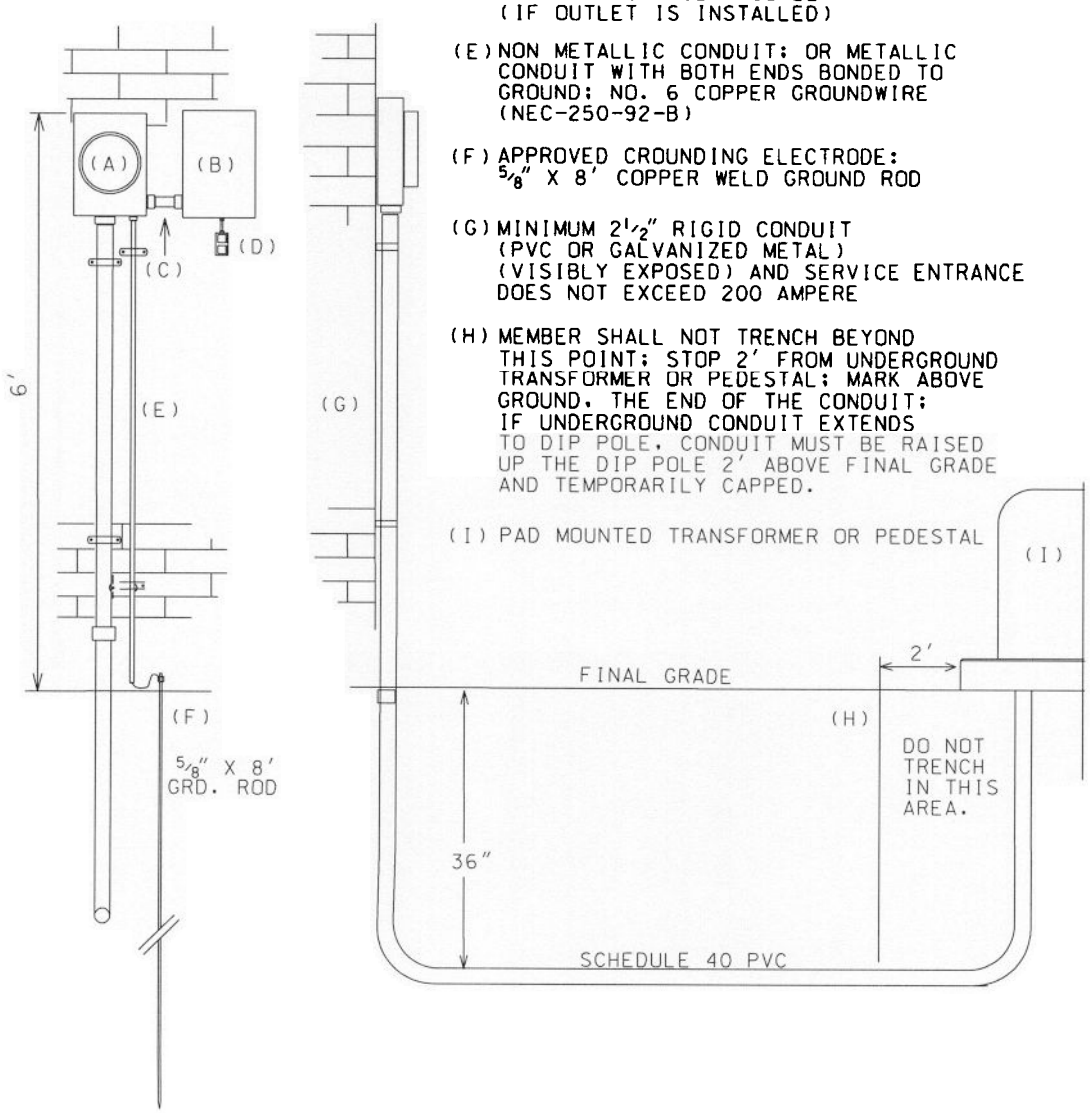
(E) NON METALLIC CONDUIT: OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE (NEC-250-92-B)

(F) APPROVED CROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

(G) MINIMUM 2 1/2" RIGID CONDUIT (PVC OR GALVANIZED METAL) (VISIBLY EXPOSED) AND SERVICE ENTRANCE DOES NOT EXCEED 200 AMPERE

(H) MEMBER SHALL NOT TRENCH BEYOND THIS POINT; STOP 2' FROM UNDERGROUND TRANSFORMER OR PEDESTAL; MARK ABOVE GROUND, THE END OF THE CONDUIT; IF UNDERGROUND CONDUIT EXTENDS TO DIP POLE, CONDUIT MUST BE RAISED UP THE DIP POLE 2' ABOVE FINAL GRADE AND TEMPORARILY CAPPED.

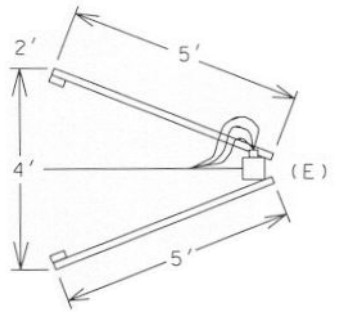
(I) PAD MOUNTED TRANSFORMER OR PEDESTAL



TEMPORARY 1 PHASE OVERHEAD METER INSTALLATION

COOPERATIVE WILL:
FURNISH AND INSTALL METER AND SERVICE DROP.

MEMBER WILL:
FURNISH & INSTALL METER BASE
FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS.
ALL BASES AND DEVICES SHALL BE BONDED TO GROUND



TOP VIEW

(A) WEATHER HEAD WITH SERVICE ENTRANCE WIRE MINIMUM LENGTH 18" AND MINIMUM NO. 6 COPPER OR ALUMINUM EQUIVALENT

(B) MINIMUM VERTICAL CLEARANCE SHALL BE AS REQUIRED BY NATIONAL ELECTRICAL SAFETY CODE. BUT IN NO CASE LESS THAN 12'- 6". (SERVICE ATTACHMENT OR DEADEND BY MVEC.)

(C) PIPE CLAMPS - 4' INTERVALS

(D) RISER CONDUIT SIZE IS DEPENDENT UPON ELECTRICAL LOAD AND STRENGTH. ALSO SEE SERVICE ENTRANCE MAST DRAWING

(E) POLE PREFERRED CLASS 7 X 18' OR MINIMUM 4"X4"X18' TREATED TIMBER WITHOUT SPLICES

(F) METER BASE (SEE METER BASE DETAIL)

(G) MEMBER DISCONNECT

(H) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER; 120 VOLTS OUTLET. (IF OUTLET IS INSTALLED)

(I) RECOMMENDED NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BOUNDED TO GROUND; NO. 6 COPPER GROUNDWIRE - CONTINUOUS FROM METER BASE TO GROUND ROD (NEC 250-92-B)

(J) APPROVED GROUNDING ELECTRODE: $\frac{5}{8}$" X 8' COPPER WELD GROUND ROD

TEMPORARY / PERMANENT 1 PHASE UNDERGROUND METER INSTALLATION

COOPERATIVE WILL:
FURNISH AND INSTALL METER SERVICE WIRE. ALL CONNECTIONS INSIDE OF TRANSFORMER, PEDESTAL OR DIP POLE

NOTE: MVEC WILL DO THE WIRE INSTALLATION INSIDE THE TRANSFORMER, PEDESTAL OR FROM THE DIP POLE.

MEMBER WILL:
FURNISH & INSTALL METER BASE AND BOND IT TO GROUND. FURNISH AND INSTALL ALL REQUIRED MATERIALS.

NOTE:
ALL BASES AND DEVICES SHALL BE BONDED TO GROUND.

TRENCH, BACKFILL, FURNISH AND INSTALL $2\frac{1}{2}$" CONDUIT(SCHEDULE 40 PVC) TO ACCOMMODATE 1/0 TO 350 MCM SERVICE. FURNISH PULL STRING FROM THE METER AS REQUIRED TO THE UNDERGROUND TRANSFORMER, PEDESTAL OR DIP POLE.

(A) METER BASE (SEE METER BASE DETAIL)

(B) MINIMUM 2" CLEARANCE BETWEEN ALL ENCLOSURES, MINIMUM WIRE SIZE NO. 6 COPPER OR AL EQUIVALENT

(C) MEMBER DISCONNECT

(D) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER: 120 VOLTS OUTLET. (IF OUTLET IS INSTALLED)

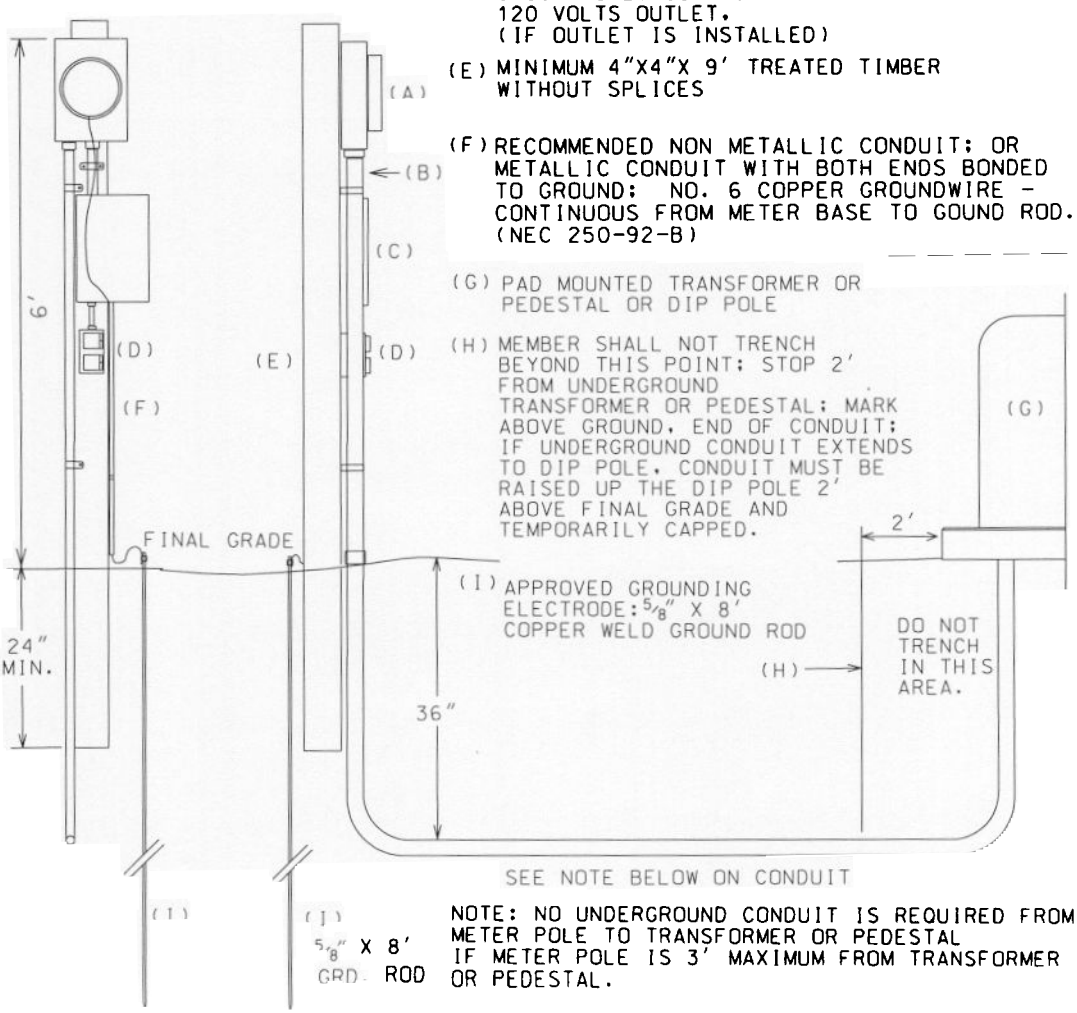
(E) MINIMUM 4"X4"X 9' TREATED TIMBER WITHOUT SPLICES

(F) RECOMMENDED NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUNDWIRE - CONTINUOUS FROM METER BASE TO GOUND ROD. (NEC 250-92-B)

(G) PAD MOUNTED TRANSFORMER OR PEDESTAL OR DIP POLE

(H) MEMBER SHALL NOT TRENCH BEYOND THIS POINT; STOP 2' FROM UNDERGROUND TRANSFORMER OR PEDESTAL; MARK ABOVE GROUND, END OF CONDUIT; IF UNDERGROUND CONDUIT EXTENDS TO DIP POLE, CONDUIT MUST BE RAISED UP THE DIP POLE 2' ABOVE FINAL GRADE AND TEMPORARILY CAPPED.

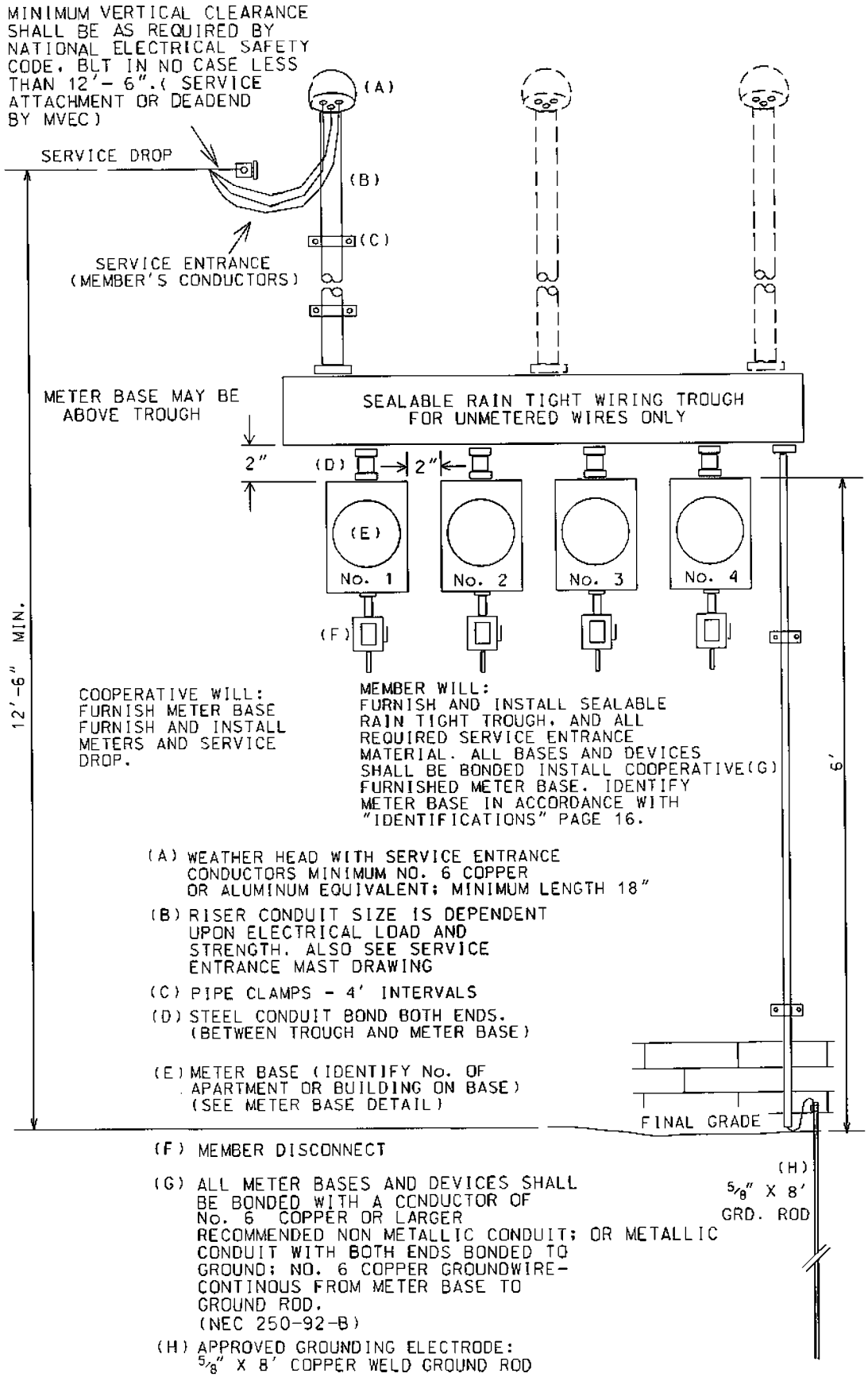
(I) APPROVED GROUNDING ELECTRODE: $\frac{5}{8}$" X 8' COPPER WELD GROUND ROD



NOTE: NO UNDERGROUND CONDUIT IS REQUIRED FROM METER POLE TO TRANSFORMER OR PEDESTAL IF METER POLE IS 3' MAXIMUM FROM TRANSFORMER OR PEDESTAL.

(2001)

OVERHEAD GROUP METERING
(MAXIMUM 6 METERS)



(A) WEATHER HEAD WITH SERVICE ENTRANCE CONDUCTORS MINIMUM NO. 6 COPPER OR ALUMINUM EQUIVALENT; MINIMUM LENGTH 18"

(B) RISER CONDUIT SIZE IS DEPENDENT UPON ELECTRICAL LOAD AND STRENGTH. ALSO SEE SERVICE ENTRANCE MAST DRAWING

(C) PIPE CLAMPS - 4' INTERVALS

(D) STEEL CONDUIT BOND BOTH ENDS. (BETWEEN TROUGH AND METER BASE)

(E) METER BASE (IDENTIFY No. OF APARTMENT OR BUILDING ON BASE) (SEE METER BASE DETAIL)

(F) MEMBER DISCONNECT

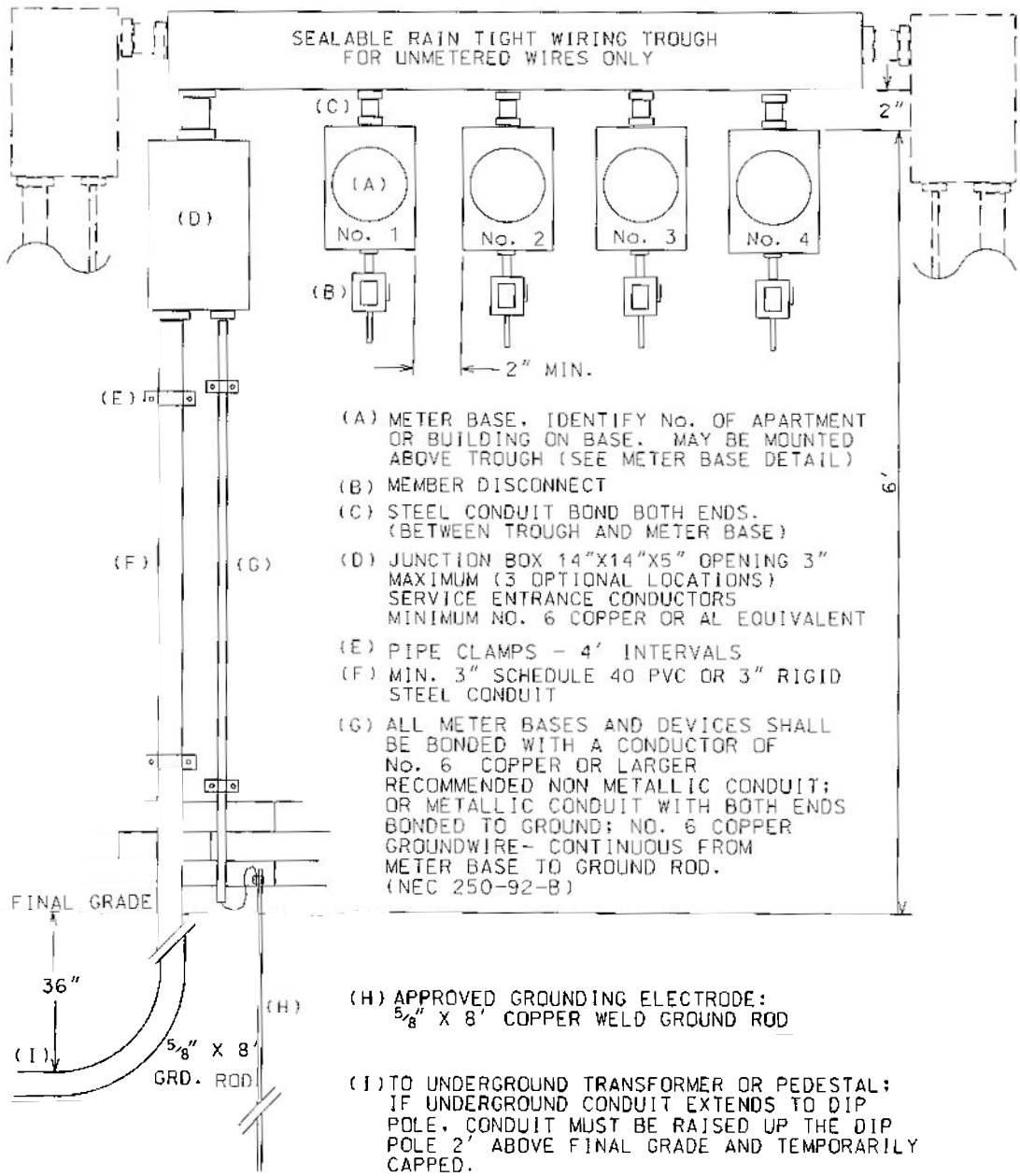
(G) ALL METER BASES AND DEVICES SHALL BE BONDED WITH A CONDUCTOR OF No. 6 COPPER OR LARGER RECOMMENDED NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUNDWIRE- CONTINOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(H) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

UNDERGOUND GROUP METERING
(MAXIMUM 6 METERS)

COOPERATIVE WILL:
CONNECT THE SERVICE CONDUCTOR TO THE MEMBER'S CONDUCTORS IN THE JUNCTION BOX AND ONLY TO A SINGLE SET OF CONDUCTORS, AND INSTALL SERVICE IN ACCORDANCE WITH THE COOPERATIVE'S STANDARD UNDERGROUND SERVICE POLICY.

MEMBER WILL:
FURNISH AND INSTALL SEALABLE RAIN TIGHT TROUGH, JUNCTION BOX AND ALL REQUIRED SERVICE ENTRANCE MATERIAL. INSTALL AND FURNISH METER BASE. ALL BASES AND DEVICES SHALL BE BONDED. FURNISH AND INSTALL CONDUIT (F&I) FROM JUNCTION BOX TO UNDERGROUND TRANSFORMER, PEDESTAL, OR DIP POLE. (SEE DRAWING UNDERGROUND METER INSTALLATION FOR LIMITS) IDENTIFY METER BASE IN ACCORDANCE WITH "IDENTIFICATIONS" PAGE 16.



(A) METER BASE, IDENTIFY No. OF APARTMENT OR BUILDING ON BASE. MAY BE MOUNTED ABOVE TROUGH (SEE METER BASE DETAIL)

(B) MEMBER DISCONNECT

(C) STEEL CONDUIT BOND BOTH ENDS. (BETWEEN TROUGH AND METER BASE)

(D) JUNCTION BOX 14"X14"X5" OPENING 3" MAXIMUM (3 OPTIONAL LOCATIONS) SERVICE ENTRANCE CONDUCTORS MINIMUM NO. 6 COPPER OR AL EQUIVALENT

(E) PIPE CLAMPS - 4' INTERVALS

(F) MIN. 3" SCHEDULE 40 PVC OR 3" RIGID STEEL CONDUIT

(G) ALL METER BASES AND DEVICES SHALL BE BONDED WITH A CONDUCTOR OF No. 6 COPPER OR LARGER RECOMMENDED NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUNDWIRE- CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

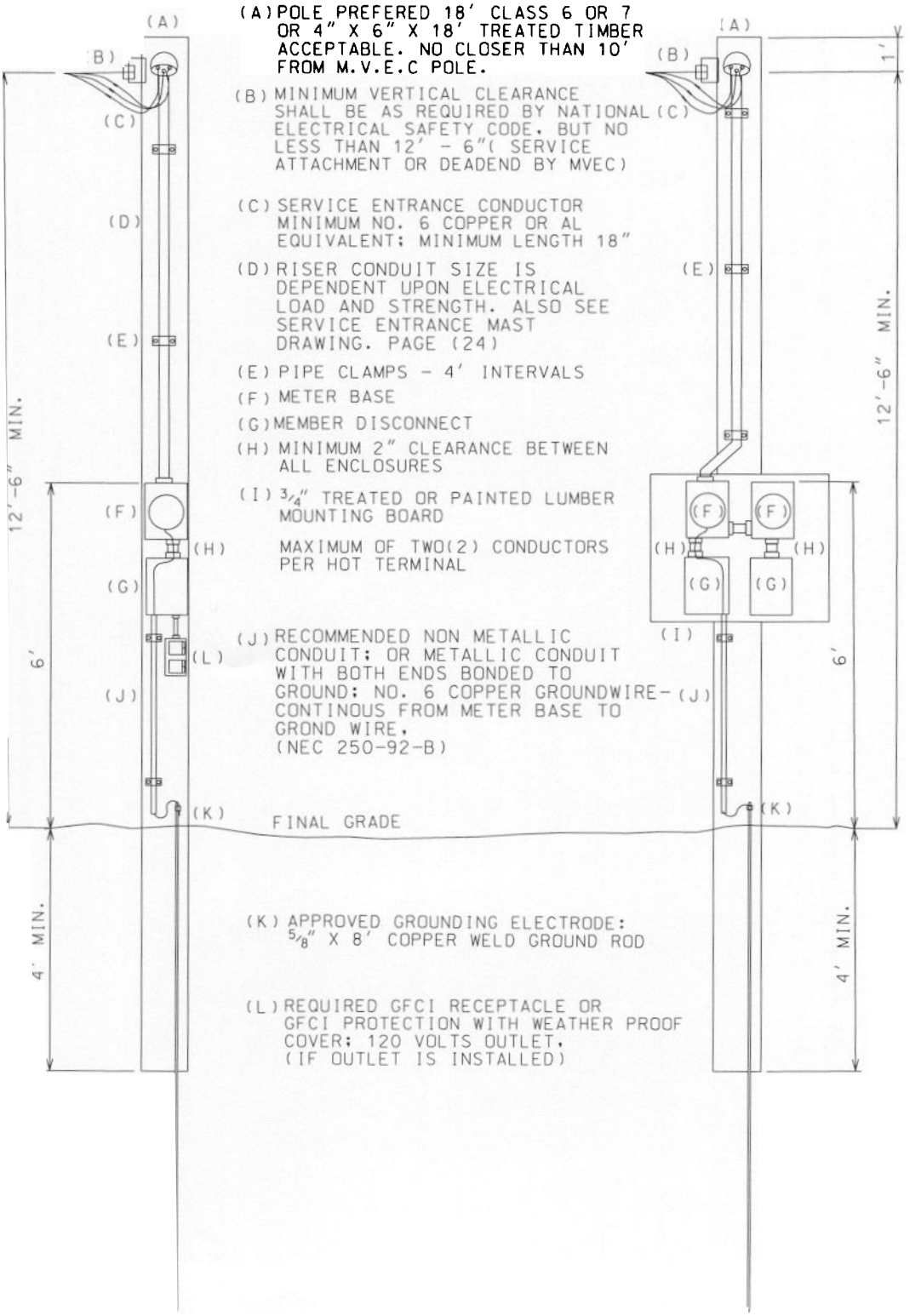
(H) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

(I) TO UNDERGROUND TRANSFORMER OR PEDESTAL; IF UNDERGROUND CONDUIT EXTENDS TO DIP POLE, CONDUIT MUST BE RAISED UP THE DIP POLE 2' ABOVE FINAL GRADE AND TEMPORARILY CAPPED.

CONSUMER OWNED SERVICE POLE INSTALLATION

COOPERATIVE WILL:
FURNISH AND INSTALL METER AND SERVICE DROP.

MEMBER WILL:
FURNISH & INSTALL METER BASE, FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS. ALL BASES AND DEVICES SHALL BE BONDED TO GROUND



(A) POLE PREFERED 18' CLASS 6 OR 7 OR 4" X 6" X 18' TREATED TIMBER ACCEPTABLE. NO CLOSER THAN 10' FROM M.V.E.C POLE.

(B) MINIMUM VERTICAL CLEARANCE SHALL BE AS REQUIRED BY NATIONAL ELECTRICAL SAFETY CODE, BUT NO LESS THAN 12' - 6"(SERVICE ATTACHMENT OR DEADEND BY MVEC)

(C) SERVICE ENTRANCE CONDUCTOR MINIMUM NO. 6 COPPER OR AL EQUIVALENT; MINIMUM LENGTH 18"

(D) RISER CONDUIT SIZE IS DEPENDENT UPON ELECTRICAL LOAD AND STRENGTH. ALSO SEE SERVICE ENTRANCE MAST DRAWING. PAGE (24)

(E) PIPE CLAMPS - 4' INTERVALS

(F) METER BASE

(G) MEMBER DISCONNECT

(H) MINIMUM 2" CLEARANCE BETWEEN ALL ENCLOSURES

(I) 3/4" TREATED OR PAINTED LUMBER MOUNTING BOARD

(H) MAXIMUM OF TWO(2) CONDUCTORS PER HOT TERMINAL

(J) RECOMMENDED NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUNDWIRE- CONTINOUS FROM METER BASE TO GROND WIRE. (NEC 250-92-B)

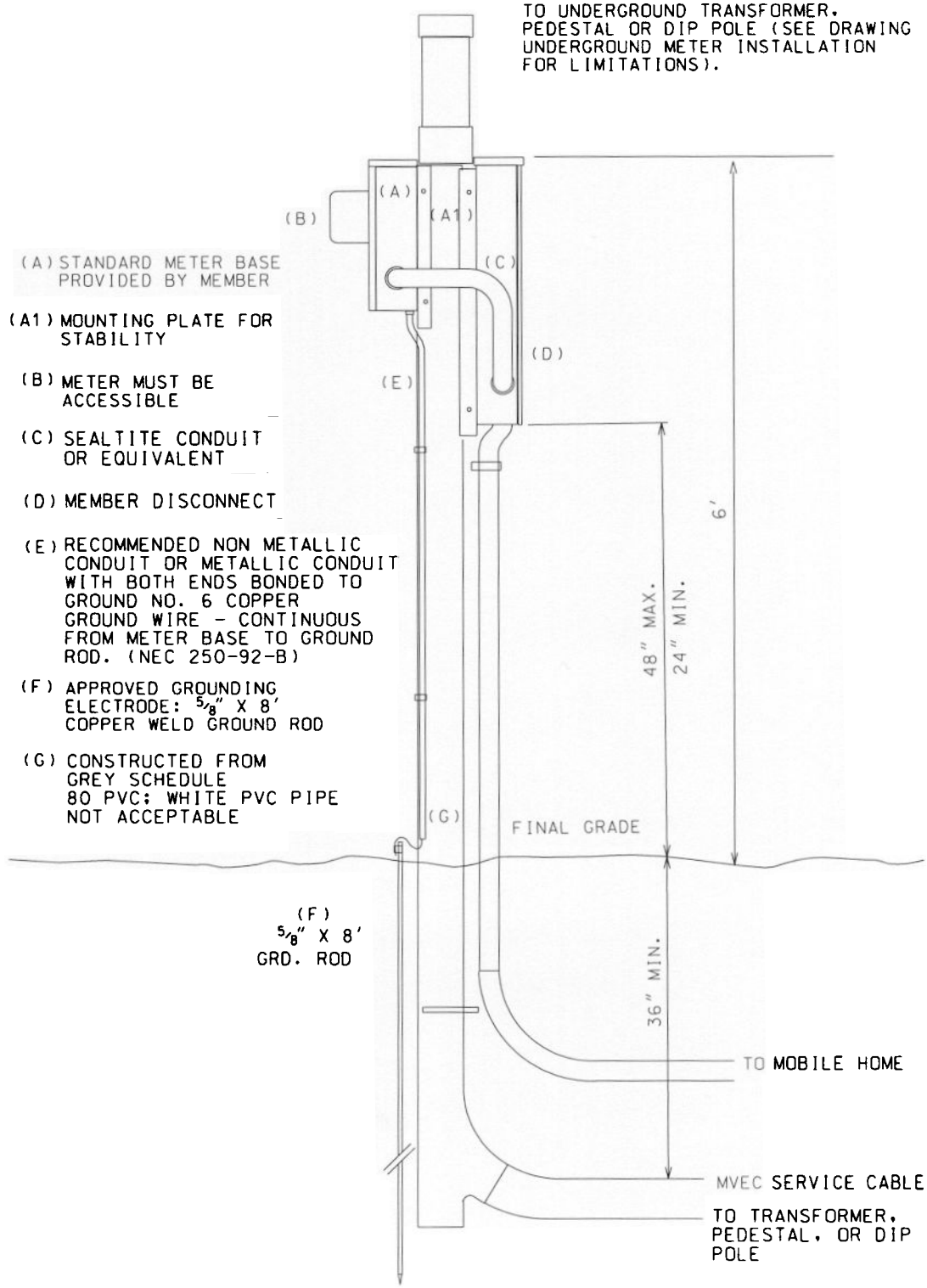
(K) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

(L) REQUIRED GFCI RECEPTACLE OR GFCI PROTECTION WITH WEATHER PROOF COVER; 120 VOLTS OUTLET, (IF OUTLET IS INSTALLED)

1 PHASE UNDERGROUND METERING (DESIGN "A")

COOPERATIVE WILL:
FURNISH & INSTALL METER AND SERVICE CABLE; CONNECTIONS INSIDE TRANSFORMER, SECONDARY PEDESTAL OR DIP POLE ARE INSTALLED BY MVEC.

MEMBER WILL:
FURNISH & INSTALL METER BASE; FURNISH AND INSTALL ALL OTHER REQUIRED MATERIAL. ALL BASES & DEVICES SHALL BE BONDED TO GROUND.
FURNISH AND INSTALL CONDUIT (G) TO UNDERGROUND TRANSFORMER, PEDESTAL OR DIP POLE (SEE DRAWING UNDERGROUND METER INSTALLATION FOR LIMITATIONS).



(A) STANDARD METER BASE PROVIDED BY MEMBER

(A1) MOUNTING PLATE FOR STABILITY

(B) METER MUST BE ACCESSIBLE

(C) SEALTITE CONDUIT OR EQUIVALENT

(D) MEMBER DISCONNECT

(E) RECOMMENDED NON METALLIC CONDUIT OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND NO. 6 COPPER GROUND WIRE - CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(F) APPROVED GROUNDING ELECTRODE: $^{5}/_{8}$" X 8' COPPER WELD GROUND ROD

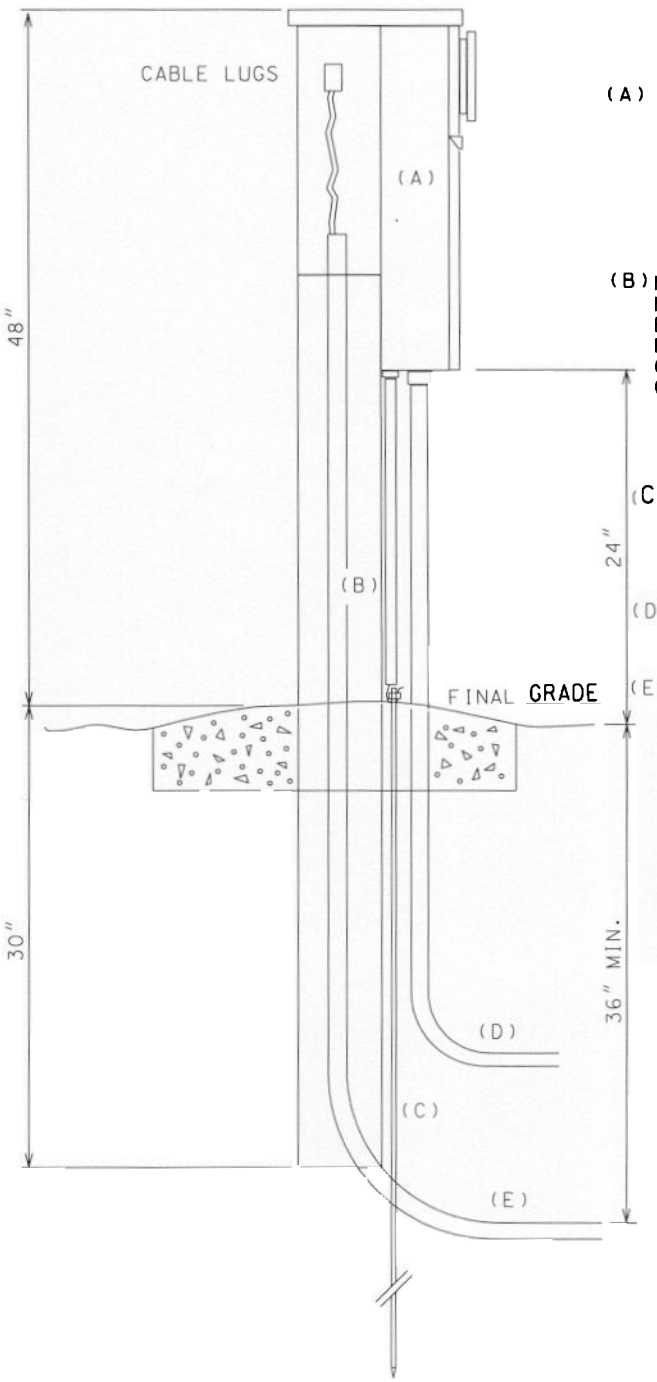
(G) CONSTRUCTED FROM GREY SCHEDULE 80 PVC; WHITE PVC PIPE NOT ACCEPTABLE

(2001)

1 PHASE UNDERGROUND MOBILE HOME METERING AND SERVICE PEDESTAL (DESIGN "B")

COOPERATIVE WILL:
FURNISH & INSTALL METER AND SERVICE CABLE: CONNECTIONS INSIDE TRANSFORMER, SECONDARY PEDESTAL, OR DIP POLE ARE INSTALLED BY MVEC.

MEMBER WILL:
FURNISH AND INSTALL METER BASE AND ALL OTHER REQUIRED EQUIPMENT. ALL BASES & DEVICES SHALL BE BONDED TO GROUND



(A) COATED ALUMINUM OR PAINTED GALVANIZED STEEL METER BASE WITH STAINLESS STEEL LOCKING RING AVAILABLE IN DOUBLE METERING POSITIONS. SERVICE ENTRANCE WIRE MINIMUM NO.6 COPPER OR AL EQUIVALENT.

(B) NON METALLIC CONDUIT, OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE CONTINOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(C) APPROVED GROUNDING ELECTRODE: $\frac{5}{8}$" X 8' COPPER WELD GROUND ROD

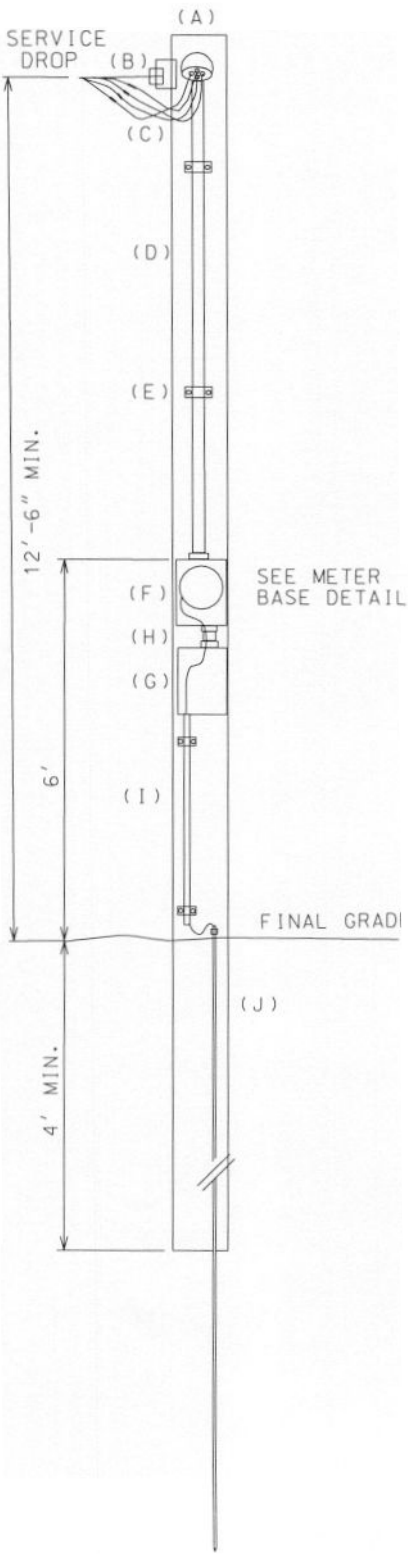
(D) TO MOBILE HOME

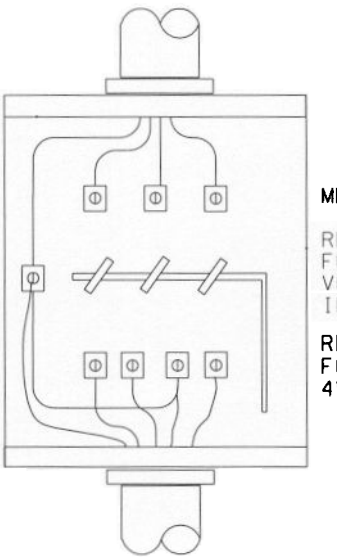
(E) MVEC SERVICE CABLE IN CONDUIT (MEMBER SHALL FURNISH AND INSTALL CONDUIT AND PULL STRING IN TRENCH FROM METER TO WITHIN 2 FEET FROM UNDERGROUND TRANSFORMER, PEDESTAL, (MARK END OF CONDUIT) OR UP THE DIP POLE 2' ABOVE FINAL GRADE (SEE DRAWING UNDERGROUND METER INSTALLATION)

3 PHASE POLE MOUNTED METER INSTALLATION

COOPERATIVE WILL:
FURNISH AND INSTALL METER, METER BASE AND SERVICE DROP.

MEMBER WILL:
INSTALL METER BASE FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS. ALL BASES & DEVICES SHALL BE BONDED TO GROUND





METER BASE DETAIL

REFER TO PAGE 39 FOR 3W 3 PHASE 240 VOLT OR 480 VOLT INSTALLATION

REFER TO PAGE 41 FOR 4W DELTA OR 4W WYE INSTALLATION

(A) POLE SHALL BE 18' CLASS 6 OR 7

(B) MINIMUM VERTICAL CLEARANCE SHALL BE AS REQUIRED BY NATIONAL ELECTRICAL SAFETY CODE: BUT IN NO CASE LESS THAN 12'-6"(SERVICE ATTACHMENT OR DEADEND BY MVEC)

(C) WEATHER HEAD AND SERVICE ENTRANCE WIRE; MINIMUM LENGTH 18" AND MINIMUM NO. 6 COPPER OR ALUMINUM. EQUIVALENT

(D) RISER CONDUIT SIZE IS DEPENDENT UPON ELECTRICAL LOAD AND STRENGTH. SEE ALSO SERVICE ENTRANCE MAST DRAWING

(E) PIPE CLAMPS - 4' INTERVALS

(F) METER BASE (SEE METER BASE DETAILS)

(G) MEMBER'S DISCONNECT

(H) MINIMUM 2" CLEARANCE BETWEEN ALL ENCLOSURES, MINIMUM WIRE NO. 6 COPPER OR AL. EQUIVALENT

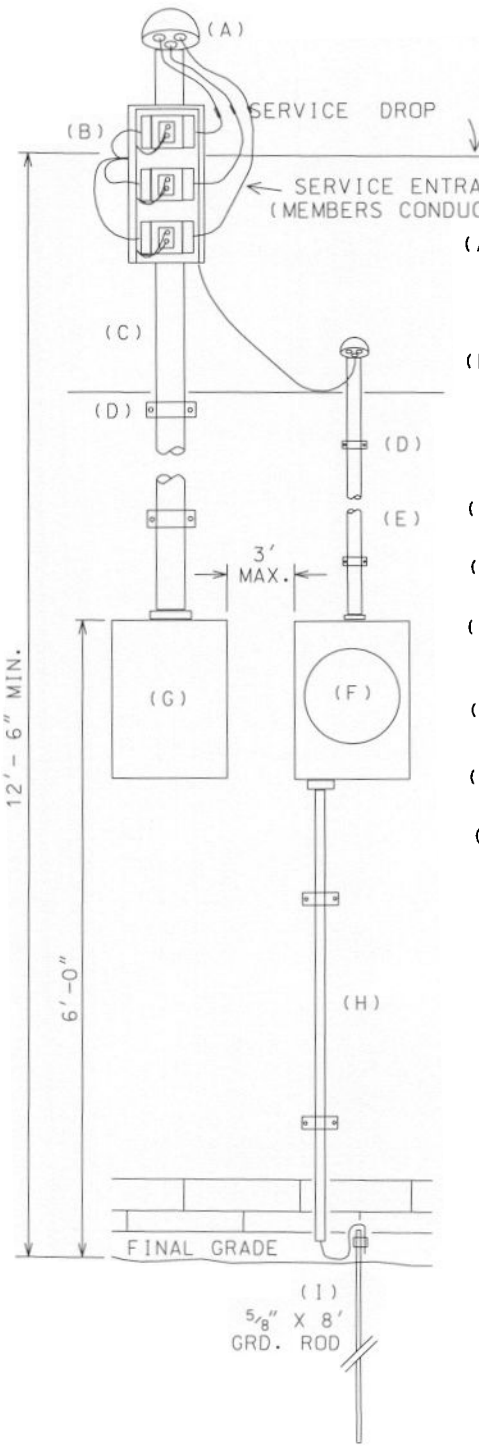
(I) NON METALLIC CONDUIT OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE- CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(J) APPROVED GROUNDING ELECTRODE: $\frac{5}{8}$" X 8' COPPER WELD GROUND ROD

CURRENT TRANFORMER- CT METERING
OVERHEAD METERING EQUIPMENT
TRANSFORMERS MOUNTED ON MAST

COOPERATIVE WILL:
FURNISH CT EQUIPMENT.
FURNISH METER BASE & INSTALL METER AND SERVICE DROP.

MEMBER WILL:
INSTALL METER BASE AND CT BRACKET.
FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS. ALL BASES AND ENCLOSURES BONDED TO GROUND.



(A) WEATHER HEAD (MAXIMUM TWO) WHEN SERVICE ENTRANCE CONDUCTORS EXCEEDS 350MCM COPPER OR EQUIVALENT: MINIMUM LENGTH 18"

(B) CURRENT TRANSFORMER (CT) ON CT BRACKET: (ALTERNATE: BRACKET MAY BE MOUNTED ON BUILDING) BOND METERING PLATE TO METER BOX WITH NO. 6 COPPER

(C) FOR CT APPLICATIONS RISER CONDUIT SHOULD EXCEED 3" RIGID CONDUIT

(D) PIPE CLAMPS - 4' INTERVALS

(E) RISER MIN. 1" GALVANIZED RIGID CONDUIT (FURNISHED AND INSTALLED BY MEMBER)

(F) METER BASE WITH SHUNT BYPASS TO BE USED ON ALL CT INSTALLATIONS.

(G) MEMBER DISCONNECT

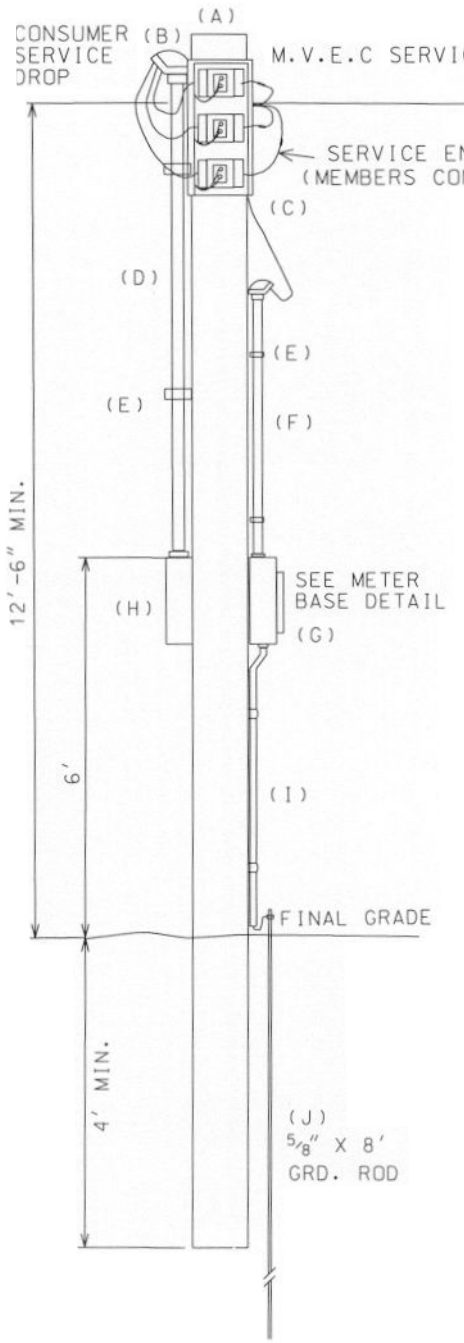
(H) NON METALLIC CONDUIT: OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE - CONTINUOUS FROM METER BASE TO GROUND ROD.
(NEC 250-92-B)

(I) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

CURRENT TRANSFORMER - CT METERING
OVERHEAD METERING EQUIPMENT
TRANSFORMERS MOUNTED ON POLE

COOPERATIVE WILL:
FURNISH CT EQUIPMENT.
FURNISH METER BASE. INSTALL METER AND SERVICE DROP.

MEMBER WILL:
INSTALL METER BASE AND CT BRACKET. FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS. ALL BASES & DEVICES SHALL BE BONDED TO GROUND.



MINIMUM VERTICAL CLEARANCE SHALL BE AS REQUIRED BY NATIONAL ELECTRICAL SAFETY CODE. BUT IN NO CASE LESS THAN 12'- 6"

(A) POLE PREFERED 18' CLASS 6 OR 7

(B) WEATHER HEAD (MAXIMUM TWO) WHEN SERVICE ENTRANCE CONDUCTORS EXCEEDS 350MCM COPPER OR EQUIVALENT: MINIMUM LENGTH 18"

(C) CURRENT TRANSFORMER (CT) ON CT BRACKET: BOND METERING PLATE TO METER BOX WITH NO.6 COPPER

(D) FOR CT APPLICATIONS RISER CONDUIT SHOULD EXCEED 3" RIGID CONDUIT

(E) PIPE CLAMPS - 4' INTERVALS

(F) RISER MIN. 1" GALVANIZED RIGID CONDUIT (FURNISHED AND INSTALLED BY MEMBER)

(G) METER BASE WITH SHUNT BYPASS TO BE USED ON ALL CT INSTALLATIONS.

(H) MEMBER DISCONNECT

(I) NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND: NO. 6 COPPER GROUNDWIRE -CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(J) APPROVED GROUNDING ELECTODE: $^{5}/_{8}$' X 8' COPPER WELD GROUND ROD

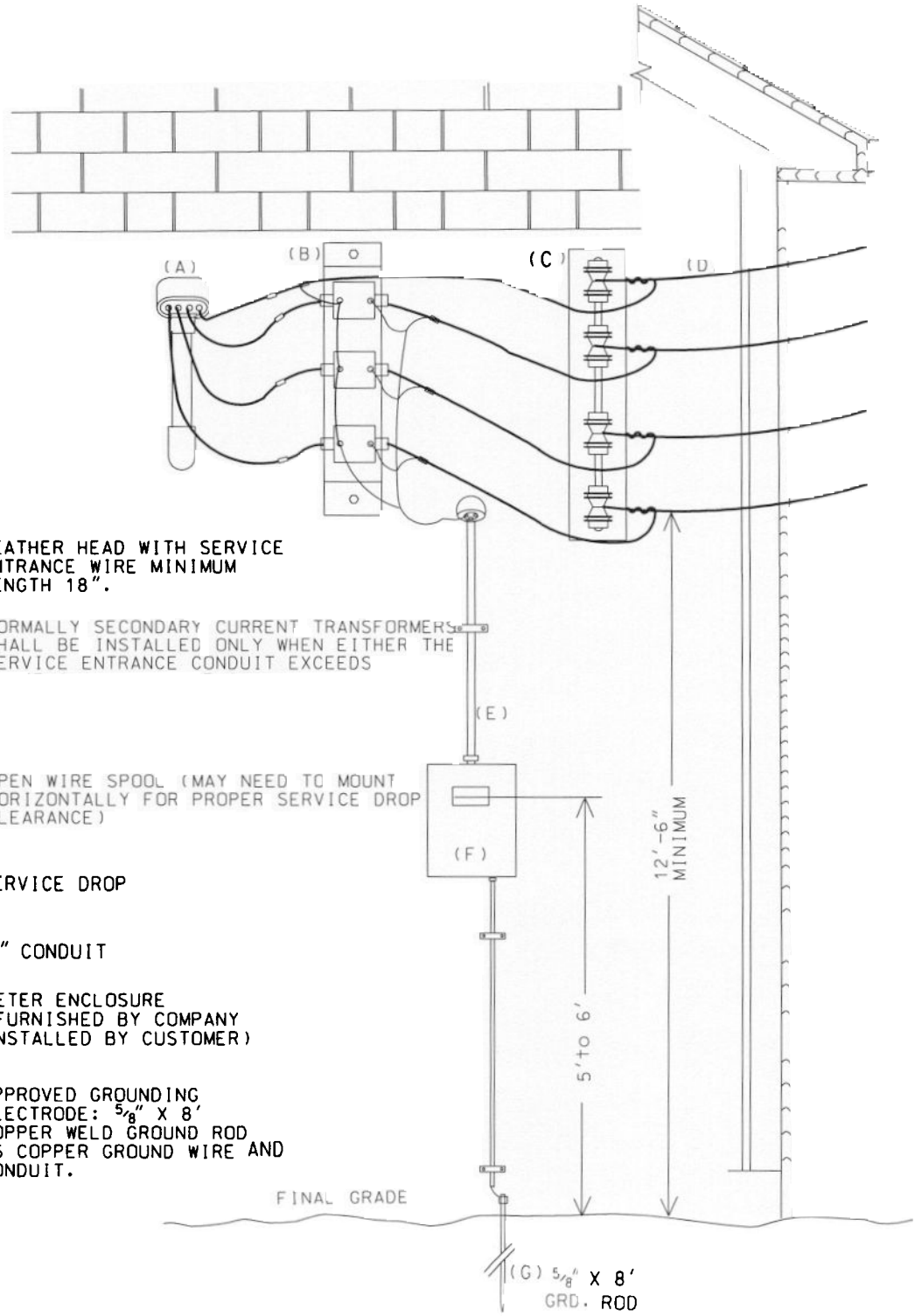
(2001)

CURRENT TRANSFORMERS- CT METERING (TRANSFORMERS MOUNTED ON BUILDING)

COOPERATIVE WILL:
FURNISH, INSTALL AND MAINTAIN SERVICE DROP, CURRENT TRANSFORMER, METER ENCLOSURE AND MAKE CONNECTIONS TO CUSTOMER'S SERVICE ENTRANCE CONDUCTORS.(WIRE) FURNISH AND INSTALL WIRING BETWEEN INSTRUMENT TRANSFORMER AND METER. FURNISH METER ENCLOSURE WIRE SPOOL(-7 POINT RACK), CT BRACKET.

MEMBER WILL:
FURNISH, INSTALL AND MAINTAIN SERVICE ENTRANCE AND ALL OTHER REQUIRED MATERIALS.

FURNISH, INSTALL AND MAINTAIN 1" MINIMUM CONDUIT AND FITTINGS BETWEEN INSTRUMENT TRANSFORMER AND INSTALL CT BRACKET, AND WIRE SPOOL.



(A) WEATHER HEAD WITH SERVICE ENTRANCE WIRE MINIMUM LENGTH 18".

(B) NORMALLY SECONDARY CURRENT TRANSFORMERS SHALL BE INSTALLED ONLY WHEN EITHER THE SERVICE ENTRANCE CONDUIT EXCEEDS

(C) OPEN WIRE SPOOL (MAY NEED TO MOUNT HORIZONTALLY FOR PROPER SERVICE DROP CLEARANCE)

(D) SERVICE DROP

(E) 1" CONDUIT

(F) METER ENCLOSURE (FURNISHED BY COMPANY INSTALLED BY CUSTOMER)

(G) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD #6 COPPER GROUND WIRE AND CONDUIT.

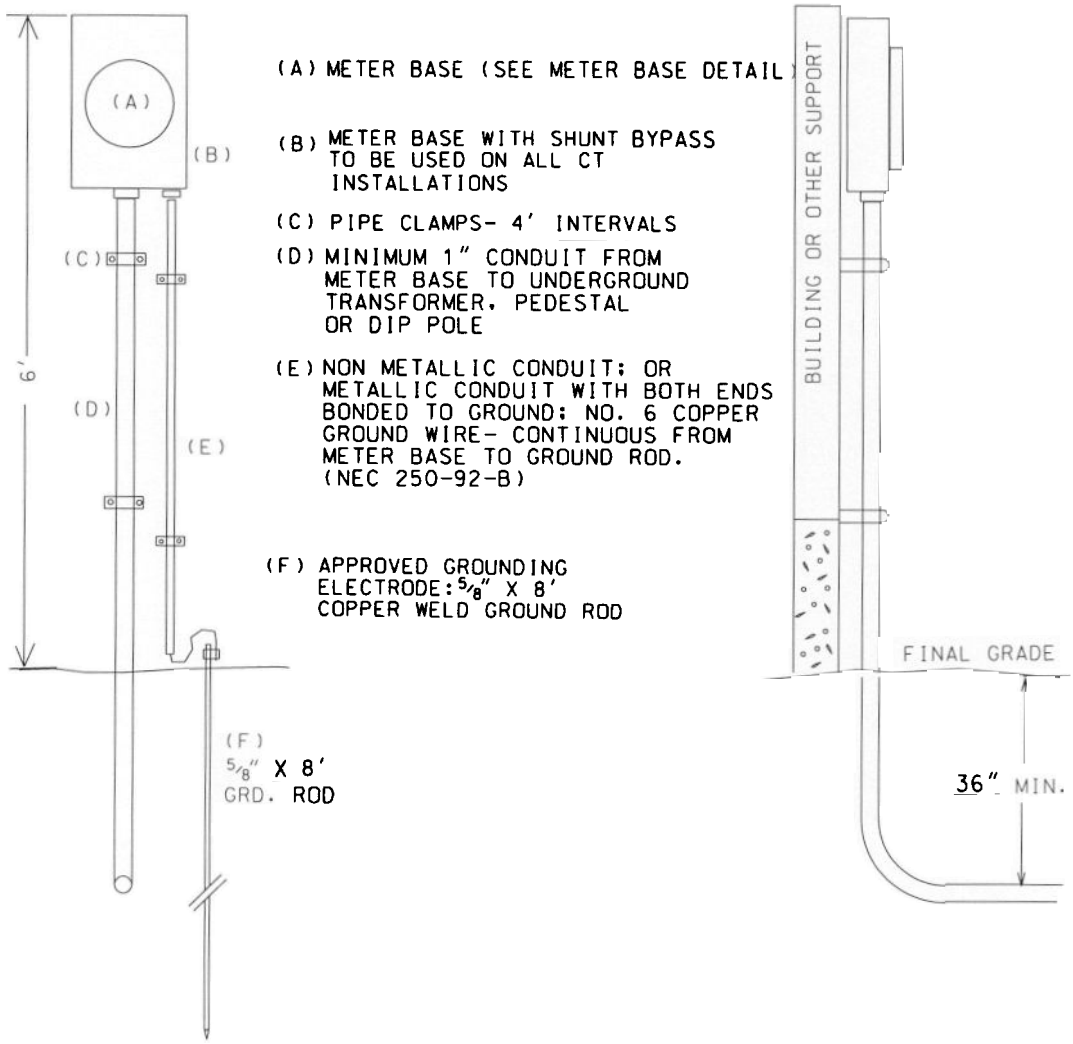
(2001)

UNDERGROUND CURRENT TRANSFORMER METERING INSTALLATION

COOPERATIVE WILL:
INSTALL METER

FURNISH AND INSTALL CABLE, C/T AND CONNECTIONS INSIDE OF TRANSFORMER OR SECONDARY ENCLOSURE

MEMBER WILL:
FURNISH & INSTALL METER BASE
FURNISH AND INSTALL ALL OTHER REQUIRED MATERIALS. 1" PVC CONDUIT AND PULL STRING TO BE FURNISHED BY MEMBER FROM THE METER BASE TO THE UNDERGROUND TRANSFORMER OR PEDESTAL. INSTALL TRENCH & BACKFILL
SPECIAL ARRANGEMENTS WILL BE MADE IF C/T CANNOT BE INSTALLED IN TRANSFORMER SEE PAGE 43-46



(A) METER BASE (SEE METER BASE DETAIL)

(B) METER BASE WITH SHUNT BYPASS TO BE USED ON ALL CT INSTALLATIONS

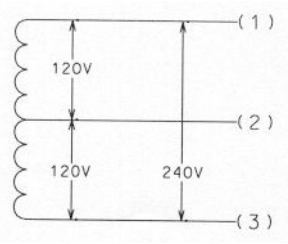
(C) PIPE CLAMPS- 4' INTERVALS

(D) MINIMUM 1" CONDUIT FROM METER BASE TO UNDERGROUND TRANSFORMER, PEDESTAL OR DIP POLE

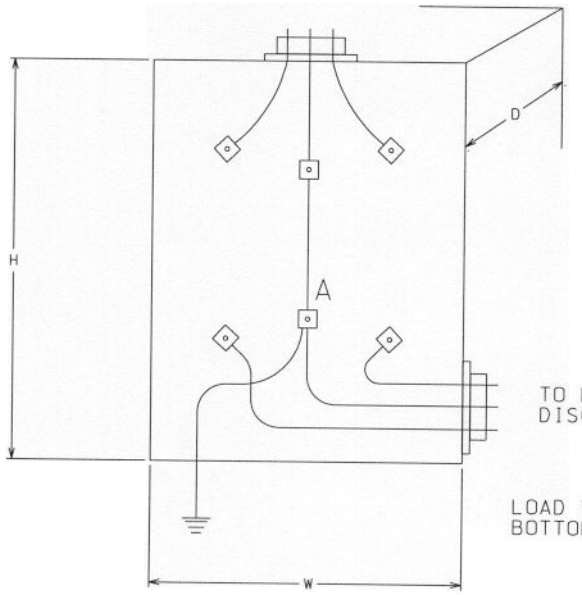
(E) NON METALLIC CONDUIT; OR METALLIC CONDUIT WITH BOTH ENDS BONDED TO GROUND; NO. 6 COPPER GROUND WIRE- CONTINUOUS FROM METER BASE TO GROUND ROD. (NEC 250-92-B)

(F) APPROVED GROUNDING ELECTRODE: 5/8" X 8' COPPER WELD GROUND ROD

OVERHEAD 1 PHASE
METER BASE 120/240 VOLT



3W 1Φ 120/240 VOLT SERVICE



MAXIMUM 2 CONDUCTORS
PER HOT TERMINAL

TO MEMBER'S
DISCONNECT DEVICE

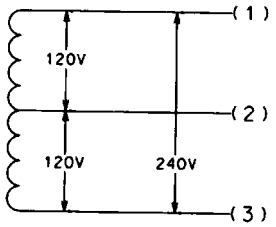
LOAD WIRES MAY EXIT SIDE,
BOTTOM, OR REAR.

ALL DIMENSIONS
ARE NOMINAL

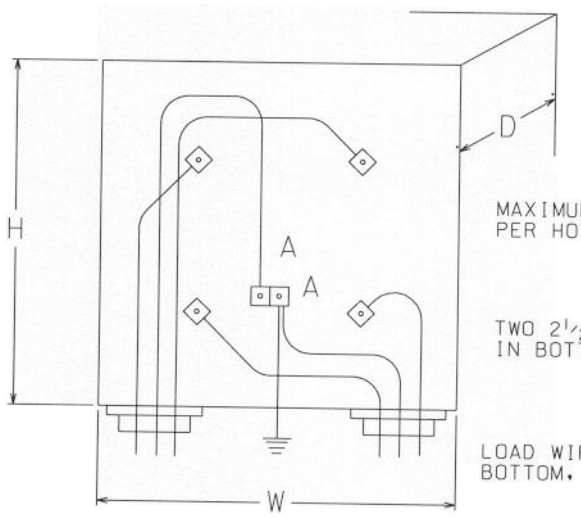
100 AMPERE METER BASE	H=10", W=8", D=3 5/8", HUB=1 1/4"	
	MAXIMUM WIRE SIZE 2/0	
	MINIMUM WIRE SIZE 6	
200 AMPERE METER BASE	H=14", W=8", D=4 3/8", HUB=2"	
	MAXIMUM WIRE SIZE 250MCM	
	MINIMUM WIRE SIZE 6	
320 AMPERE METER BASE	H=26", W=16 1/4", D=5 1/2", HUB=3"	
	MAXIMUM WIRE SIZE 600MCM	
	OR PARALLEL 350 MCM	
	MINIMUM WIRE SIZE 6	

NOTE: NO. 6 COPPER- CONTINUOUS GROUND WIRE
FROM METER BASE (CONNECTION "A") TO GROUND ROD.

UNDERGROUND 1 PHASE
METER BASE 120/240 VOLT



3W 1Φ 120/240 VOLT SERVICE

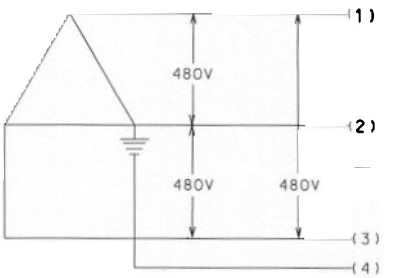


ALL DIMENSIONS
ARE NOMINAL

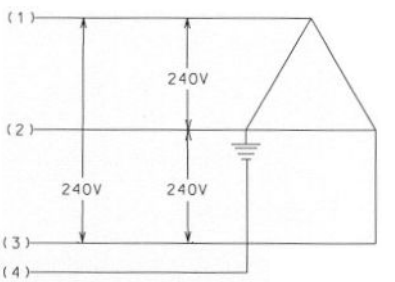
200 AMPERE METER BASE H=14", W=11", D=4"
MAXIMUM WIRE SIZE 250MCM

NOTE: NO. 6 COPPER- CONTINUOUS GROUND WIRE
FROM METER BASE (CONNECTION "A") TO GROUND ROD.

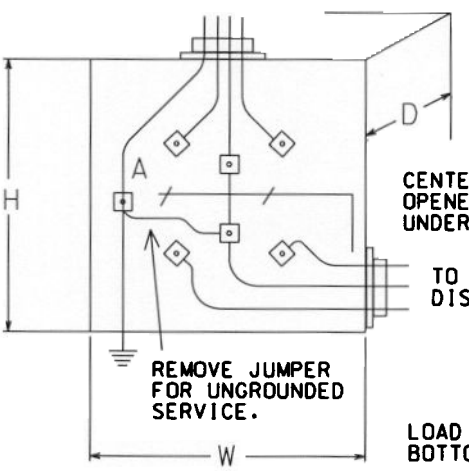
OVERHEAD 3W 3 PHASE
5 TERMINAL METER BASE 240 OR 480 VOLT
WITH 4th WIRE



480 VOLT GROUNDED SERVICE



240 VOLT GROUNDED SERVICE



CENTER PHASE MUST BE OPENED WHEN DISCONNECTING UNDERGROUND SERVICE.

TO MEMBER'S DISCONNECT DEVICE

REMOVE JUMPER FOR UNGROUNDED SERVICE.

LOAD WIRES MAY EXIT SIDE, BOTTOM, OR REAR.

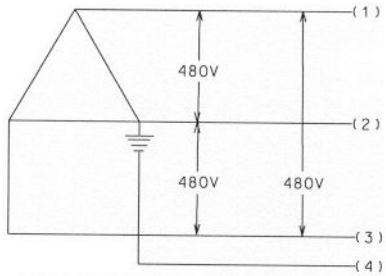
ALL DIMENSIONS ARE NOMINAL

200 AMPERE METER BASE 240 VOLT	H=17", W=10", D=5¼", HUB=2"	MAXIMUM WIRE SIZE 350MCM MAXIMUM 75HP W/BYPASS AND JAW RELEASE
200 AMPERE METER BASE 480 VOLT	H=17", W=10", D=5¼", HUB=2"	MAXIMUM WIRE SIZE 350MCM MAXIMUM 150HP W/BYPASS AND JAW RELEASE

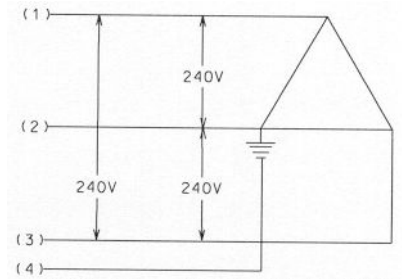
NOTES:
1. WHEN USED ON 480 VOLT, THIS METER BASE WILL BE IDENTIFIED AS PER USE ON 480 VOLT ONLY.
2. NO. 6 COPPER- CONTINUOUS GROUND WIRE FROM METER BASE (CONNECTION "A") TO GROUND ROD.

UNDERGROUND 3W 3 PHASE
5 TERMINAL METER BASE 240 OR 480 VOLT
WITH 4th WIRE

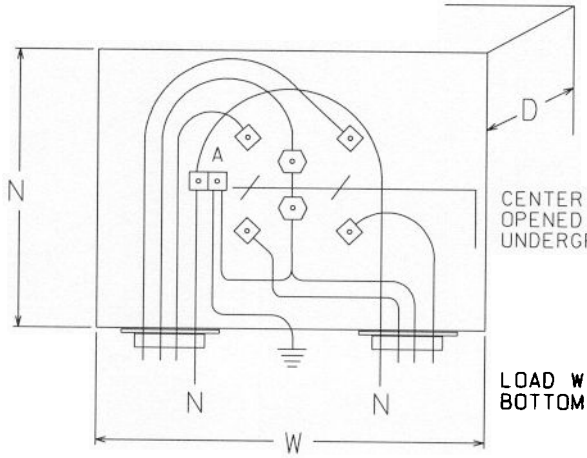
(OVERHEAD TRANSFORMER ONLY WITH UNDERGROUND SERVICE.)



480 VOLT GROUNDED SERVICE



240 VOLT GROUNDED SERVICE



CENTER PHASE MUST BE OPENED WHEN DISCONNECTING UNDERGROUND SERVICE.

LOAD WIRES MAY EXIT SIDE, BOTTOM, OR REAR.

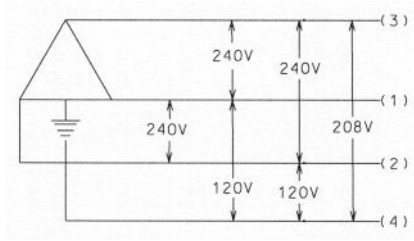
ALL DIMENSIONS ARE NOMINAL

200 AMPERE SOCKET 240 VOLT	H=19 1/4", W=13 1/4", D=5 1/4" MAXIMUM WIRE SIZE 350MCM MAXIMUM 75HP W/BYPASS AND JAW RELEASE
200 AMPERE SOCKET 480 VOLT	H=19 1/4", W=13 1/4", D=5 1/4" MAXIMUM WIRE SIZE 350MCM MAXIMUM 150HP W/BYPASS AND JAW RELEASE

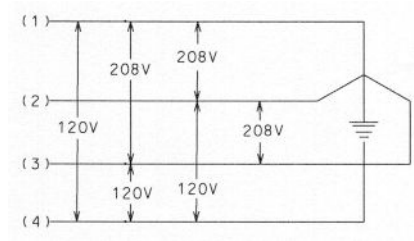
NOTES:
1. WHEN USED ON 480 VOLT, THIS SOCKET WILL BE IDENTIFIED AS PER USE ON 480 VOLT ONLY.

2. NO. 6 COPPER- CONTINUOUS GROUND WIRE FROM METER BASE (CONNECTION "A") TO GROUND ROD

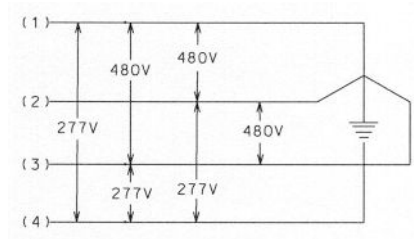
OVERHEAD 4W 3 PHASE
7 TERMINAL METER BASE



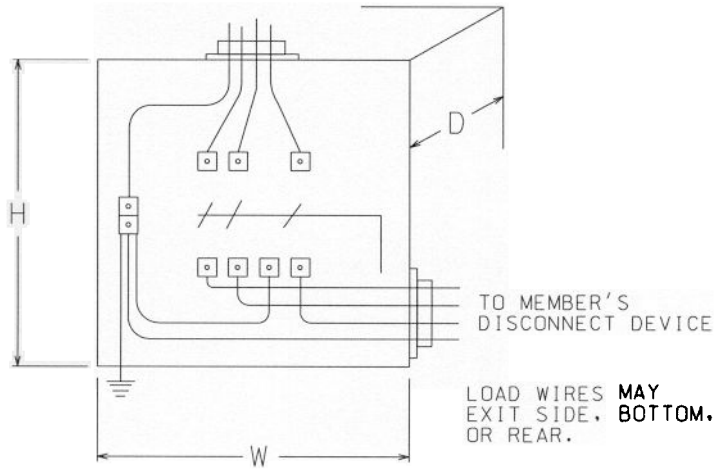
4W 3 PHASE 120/240 VOLT SERVICE



4W 3 PHASE 120/208 VOLT SERVICE



4W 3 PHASE 277/480 VOLT SERVICE



ALL DIMENSIONS
ARE NOMINAL

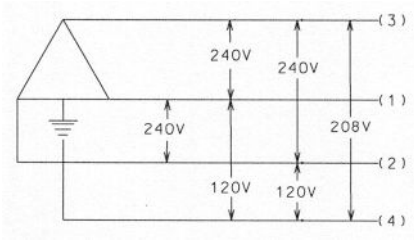
200 AMPERE METER BASE H=17", W=10", D=5¾", HUB=2½"
MAXIMUM WIRE SIZE 350MCM
BYPASS AND JAW RELEASE

320 AMPERE METER BASE H=26¼", W=17¾", D=7", HUB=3"
MAXIMUM WIRE SIZE 600MCM
BYPASS AND JAW RELEASE

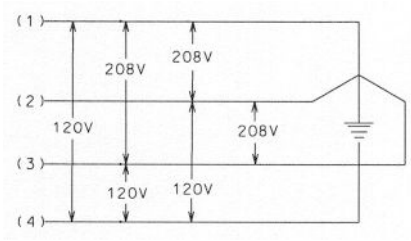
320 AMPERE METER BASE H=28¼", W=13½", D=6", HUB=4"
MAXIMUM WIRE SIZE 600MCM
OR PARALLEL 4/0 - 350MCM
PER TERMINAL WITH BYPASS AND JAW RELEASE

NOTE: NO. 6 COPPER- CONTINOUS GROUND WIRE
FROM METER BASE (CONNECTION "A") TO GROUND ROD.

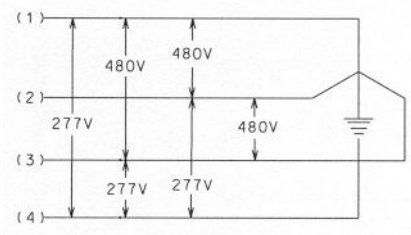
UNDERGROUND 4W 3 PHASE METER BASE
7 TERMINAL METER BASE



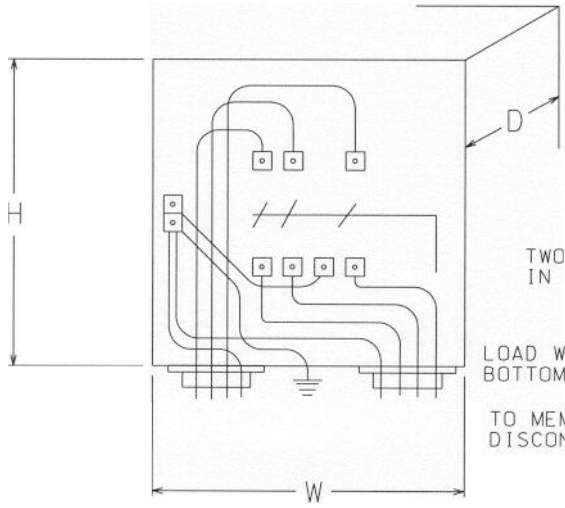
4W 3 PHASE 120/240 VOLT SERVICE
OVERHEAD TRANSFORMER ONLY WITH
UNDERGROUND SERVICE



4W 3 PHASE 120/208 VOLT SERVICE



4W 3 PHASE 277/480 VOLT SERVICE



ALL DIMENSIONS
ARE NOMINAL

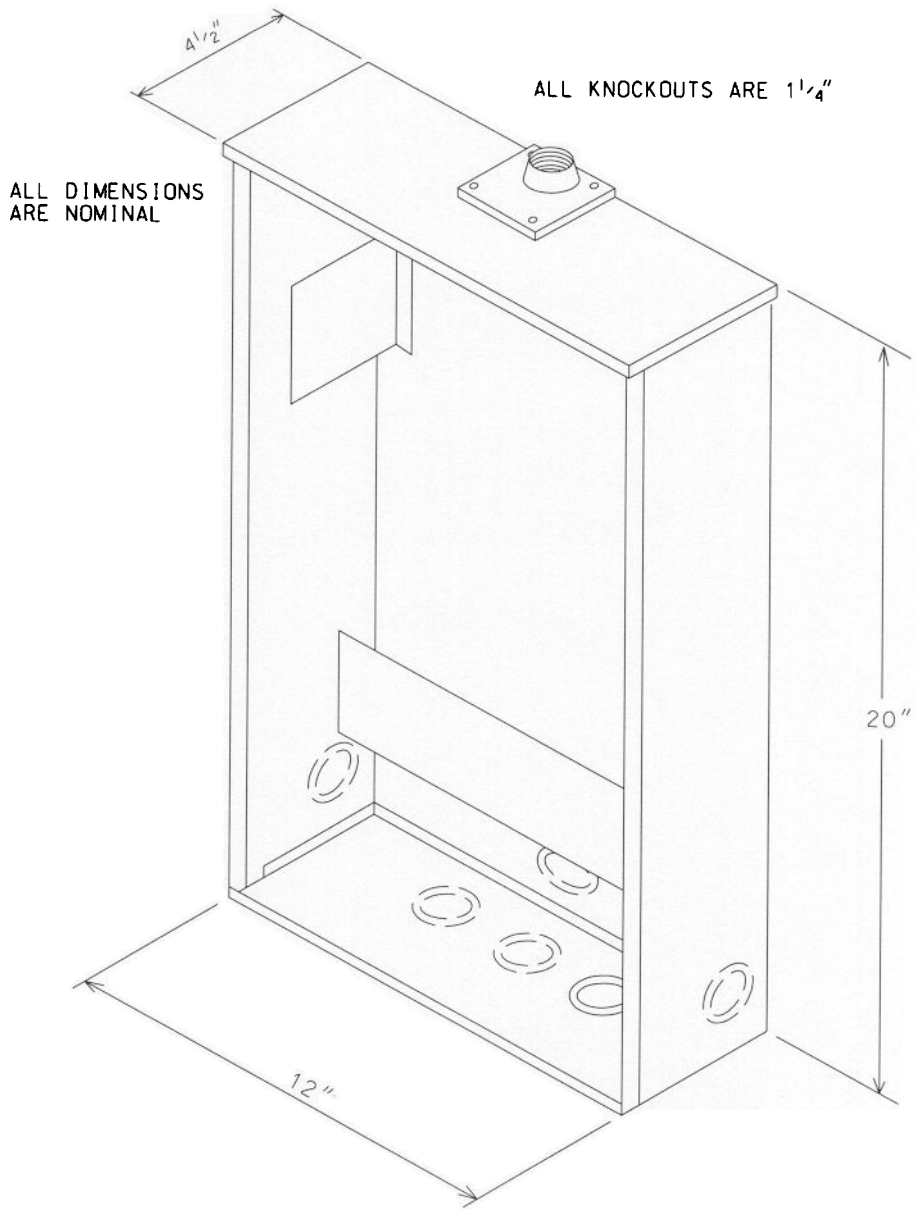
200 AMPERE METER BASE H=19 1/4". W=12 3/4". D=5 1/4"
MAXIMUM WIRE SIZE 350MCM
BYPASS AND JAW RELEASE

320 AMPERE METER BASE H=26 1/4". W=17 3/4". D=7". HUB=3"
MAXIMUM WIRE SIZE 600MCM
BYPASS AND JAW RELEASE

320 AMPERE METER BASE H=28 1/4". W=13 1/2". D=6" HUB=4"
MAXIMUM WIRE SIZE 600MCM
OR PARALLEL 4/0 - 350MCM
PER TERMINAL WITH BYPASS AND JAW RELEASE

NOTE: NO. 6 COPPER- CONTINOUS GROUND WIRE
FROM METER BASE (CONNECTION "A") TO GROUND ROD.

TRANSFORMER RATED METER BASE WITH TEST SWITCH COMPARTMENT



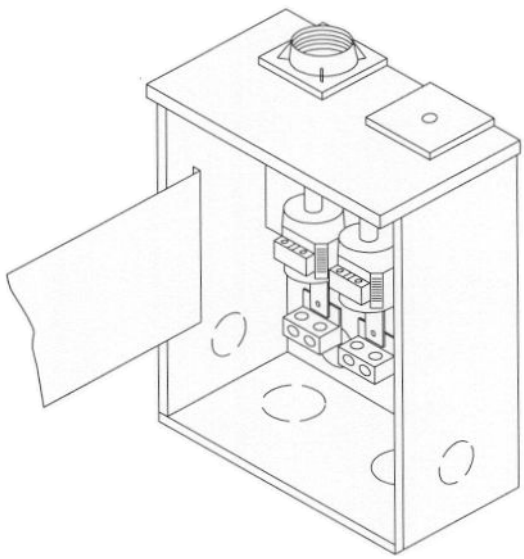
COOPERATIVE WILL:
FURNISH C/T. INSTALL METER AND METER WIRING.

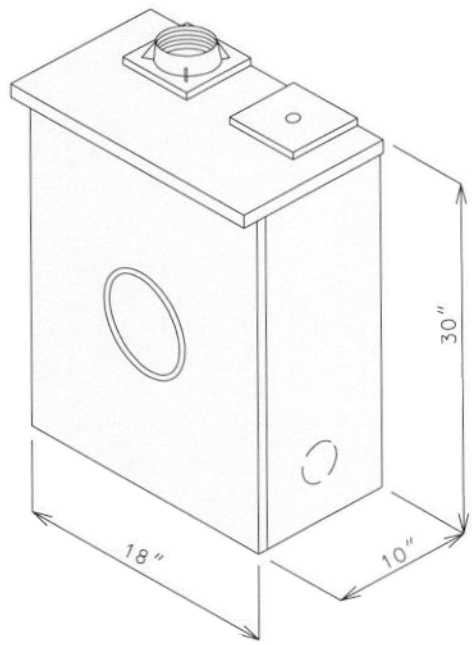
MEMBER WILL:
FURNISH AND INSTALL ENCLOSURE AND ALL OTHER REQUIRED MATERIALS
FURNISH & INSTALL METER BASE AND C/T. AS DIRECTED BY COOPERATIVE

TRANSOCKET
(RATING FACTOR 3.0)

NORMAL HUB SIZES
3", 3½", 4"

ALL DIMENSIONS
ARE NOMINAL





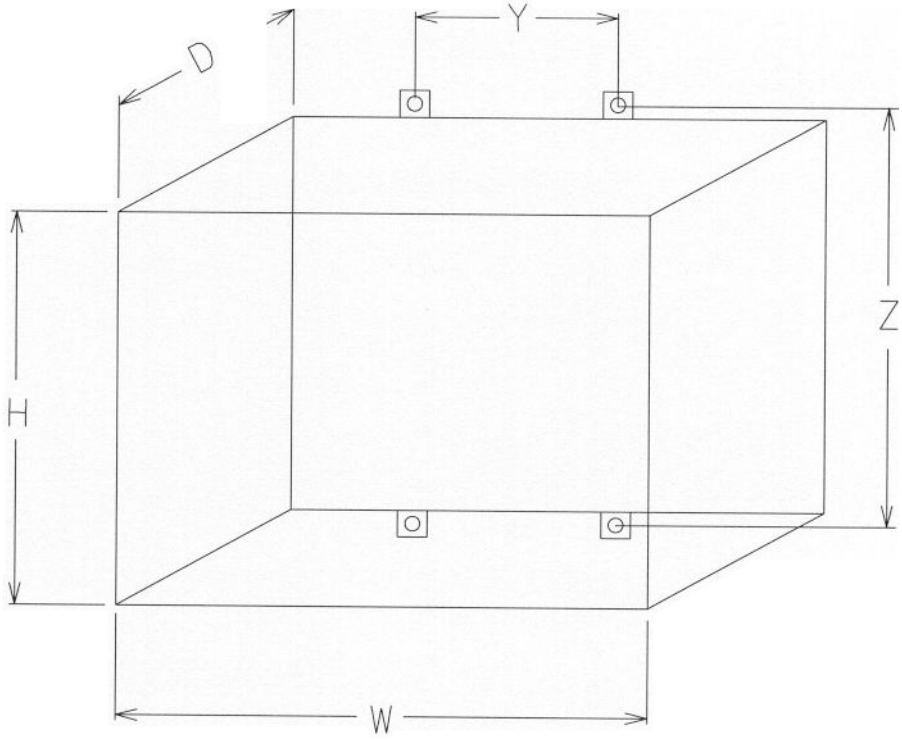
KNOCKOUTS THRU 3½"

UNITS: 300 AMPERE 120/240 VOLT 4W DELTA
300 AMPERE 120/240 VOLT 4W WYE
MAXIMUM WIRE SIZE PARALLEL 350MCM

COOPERATIVE WILL:
FURNISH C/T AND METER.
FURNISH AND INSTALL METER AND
METER WIRING.

MEMBER WILL:
FURNISH AND INSTALL ENCLOSURE AND
ALL OTHER REQUIRED MATERIALS
FURNISH & INSTALL METER BASE AND C/T.
AS DIRECTED BY COOPERATIVE

WALL MOUNTED METERING TRANSFORMER ENCLOSURE USED PRIMARILY TO ENCLOSE METERING TRANSFORMERS



ALL DIMENSIONS
ARE NOMINAL

XXAN-25 H=24 1/4", W=25 1/4", D=12 1/4", Y=19", Z=26"

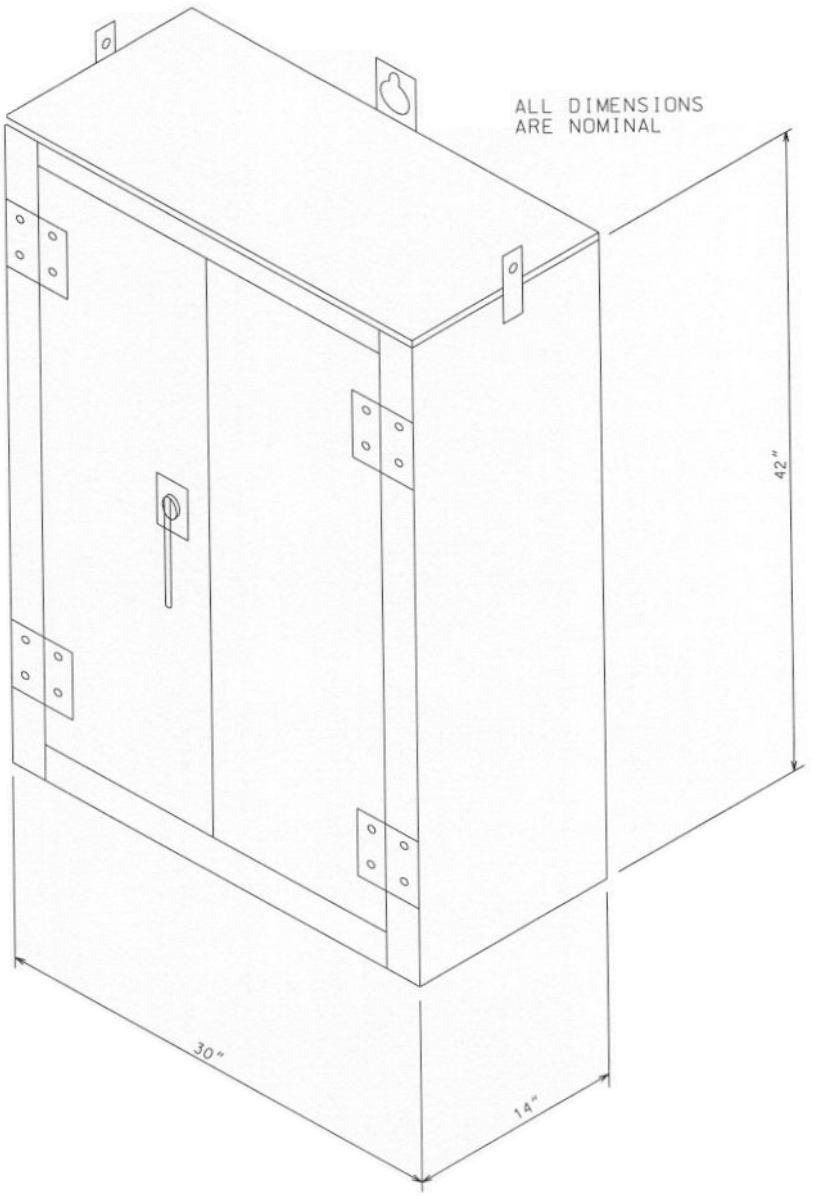
XXAN-35 H=34 1/2", W=34 1/2", D=12 1/4", Y=26", Z=38"

XXAN-48 H=48", W=48", D=12", Y=29", Z=50 1/2"

COOPERATIVE WILL:
FURNISH C/T AND METER.
FURNISH AND INSTALL METER AND METER WIRING.

MEMBER WILL:
FURNISH AND INSTALL ENCLOSURE AND ALL OTHER REQUIRED MATERIALS
FURNISH & INSTALL METER BASE AND C/T, AS DIRECTED BY COOPERATIVE

METERING TRANSFORMER ENCLOSURE
(DOUBLE DOOR)

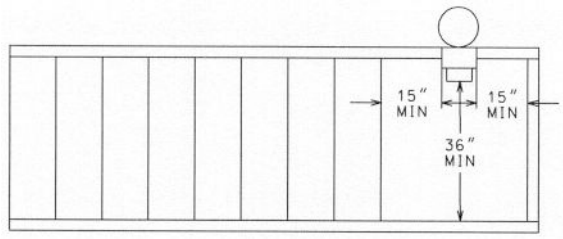


COOPERATIVE WILL:
FURNISH C/T AND METER.
FURNISH AND INSTALL METER AND
METER WIRING.

MEMBER WILL:
FURNISH AND INSTALL ENCLOSURE AND
ALL OTHER REQUIRED MATERIALS
FURNISH & INSTALL METER BASE AND C/T.
AS DIRECTED BY COOPERATIVE

1 PHASE OVERHEAD METER INSTALLATION
POLE MOUNT ABOVE FLOOD LEVEL W/PLATFORM

PLATFORM SHALL SAFELY WITHSTAND
A 500 POUND WORKING LOAD.



TOP VIEW

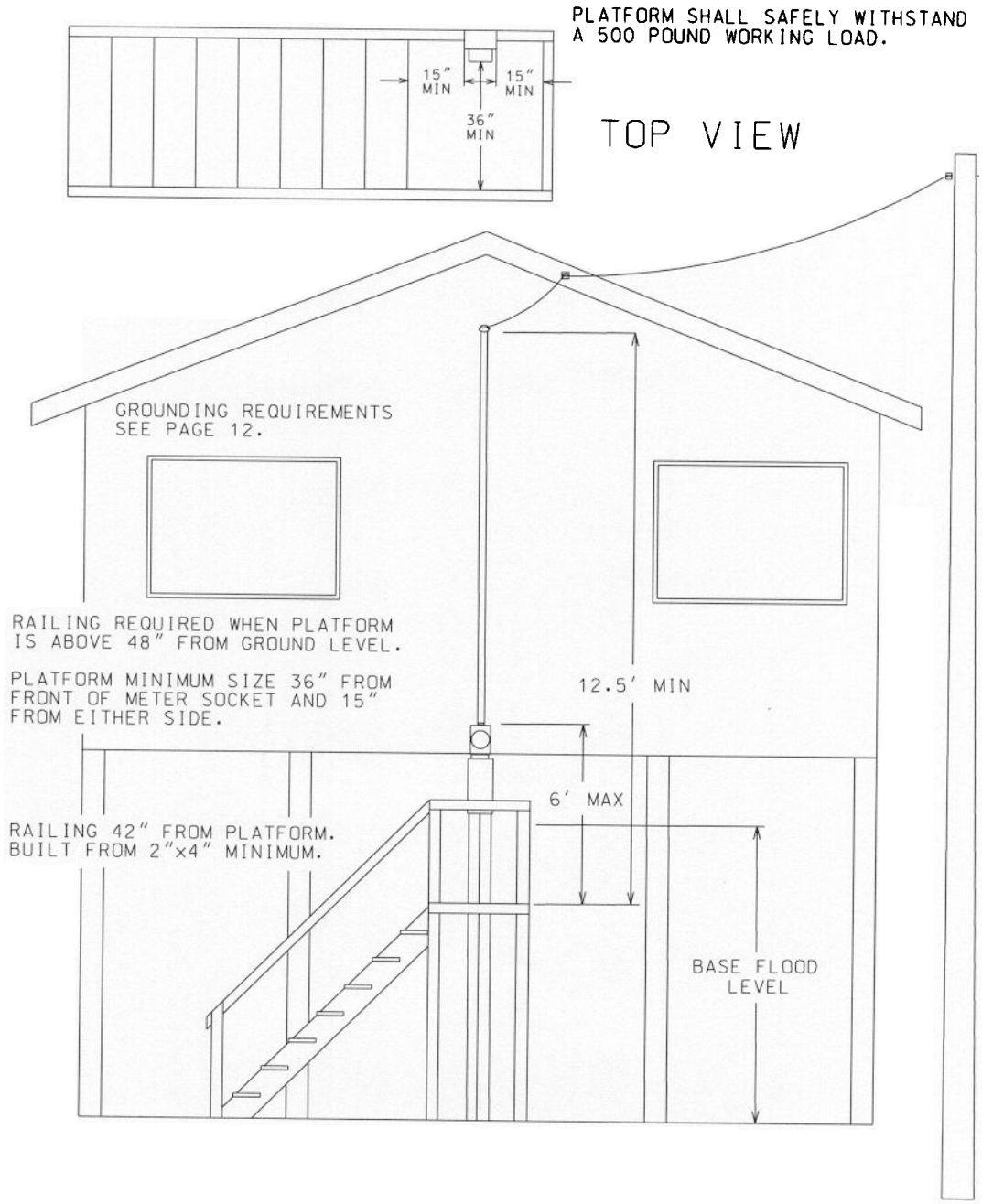
GROUNDING REQUIREMENTS
SEE PAGE 12-F.

RAILING REQUIRED WHEN PLATFORM
IS ABOVE 48" FROM GROUND LEVEL.

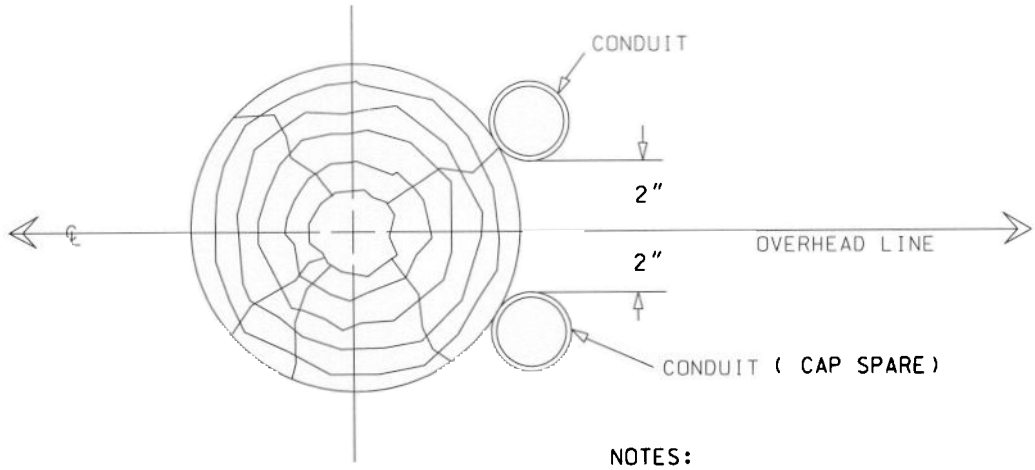
PLATFORM MINIMUM SIZE 36" FROM
FRONT OF METER SOCKET AND 15"
FROM EITHER SIDE.

RAILING 42" FROM PLATFORM.
BUILT FROM 2"x4" MINIMUM.

1 PHASE OVERHEAD METER INSTALLATION
WALL MOUNT ABOVE FLOOD LEVEL W/PLATFORM



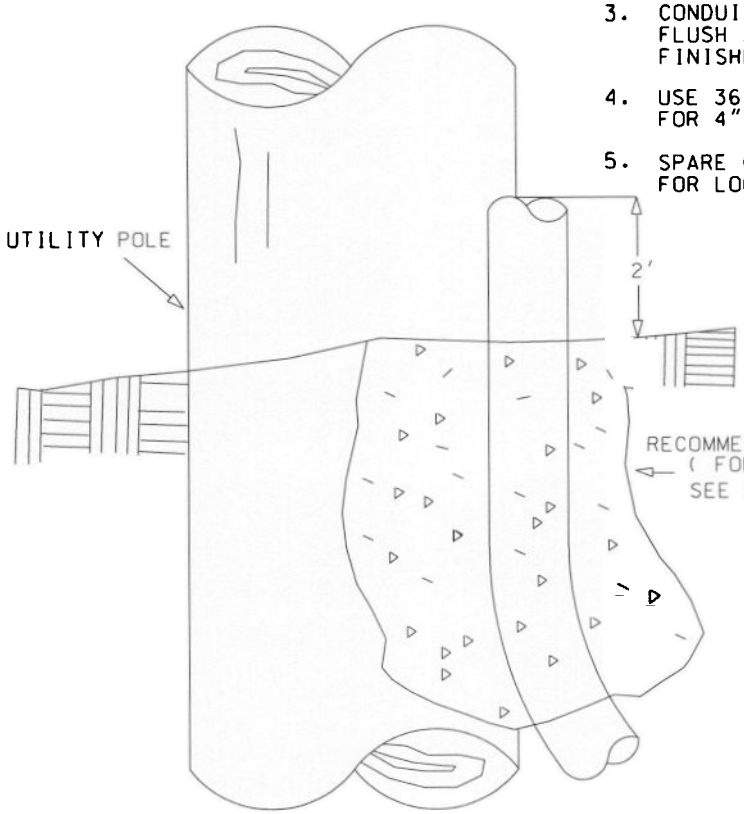
DETAIL OF CONDUIT INSTALLATION AT PRIMARY OR SECONDARY RISER POLE



TOP VIEW

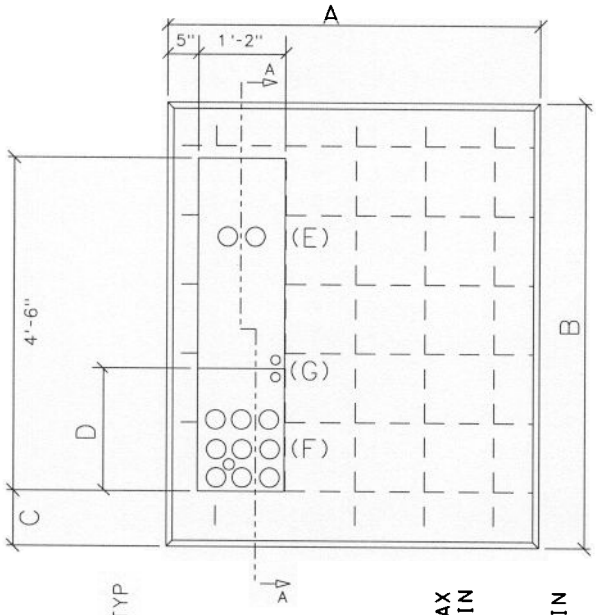
NOTES:

1. MVEC TO INSTALL RISER POLE PRIOR TO CONDUIT INSTALLATION.
2. MVEC TO INSPECT & APPROVE CONDUIT FOR PROPER INSTALLATION PRIOR TO CONCRETE ENCASEMENT.
3. CONDUITS TO BE INSTALLED FLUSH AGAINST POLE ABOVE FINISHED GRADE.
4. USE 36" RADIUS ELBOWS FOR 4" CONDUITS.
5. SPARE CONDUIT NOT REQUIRED FOR LOOP SYSTEM OR SECONDARY.

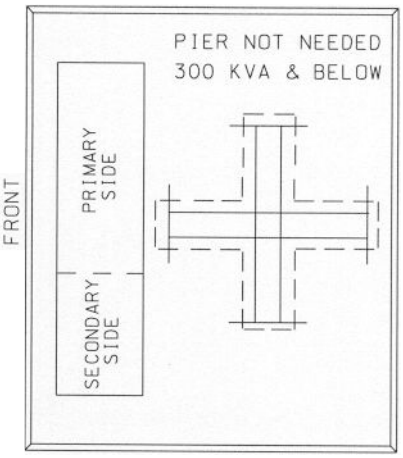


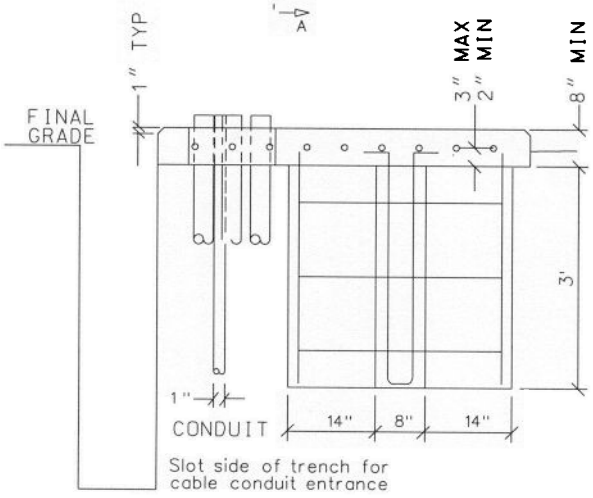
SIDE VIEW

CONCRETE PAD ASSEMBLY FOR THREE PHASE PADMOUNT TRANSFORMER

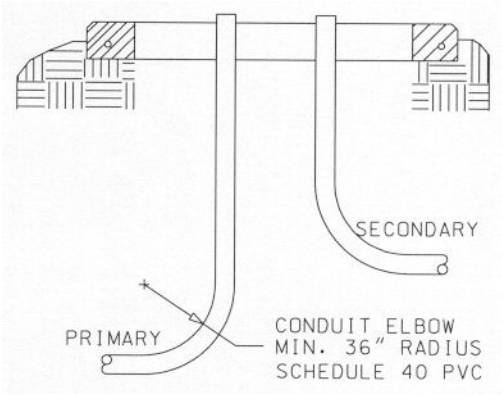


TOP VIEW





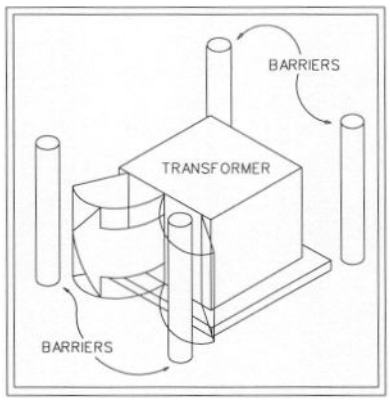
SECTION VIEW A-A



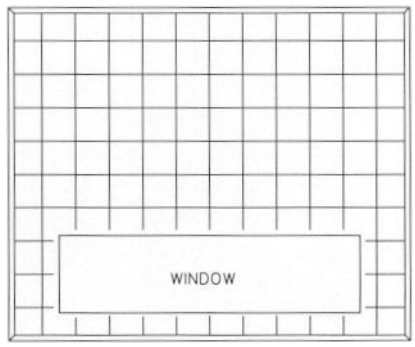
PAD DIMENSION TABLE			
DIM \ KVA	UP TO 300 KVA	500 THRU 1000 KVA	1500 THRU 3000 KVA
A	5'-0"	6'-0"	7'-0"
B	6'-0"	7'-0"	8'-0"
C	0'-9"	1'-3"	1'-9"
D	1'-8"	2'-0"	2'-0"
E	HIGH VOLTAGE OR PRIMARY SIDE OF TRANSFORMER, PRIMARY CONDUITS		
F	LOW VOLTAGE OR SECONDARY SIDE OF TRANSFORMER, ONE 1" CONDUIT FOR METERING, OTHER CONDUITS FOR SECONDARY WIRE		
G	CONSUMER TO INSTALL GROUND RODS 5/8" X 8' IN COMPARTMENT OPENING		

NOTES:
1. PAD ASSEMBLIES INCLUDE SITE PREPARATION, BEDDING AND DRAINAGE.
2. SLABS MAY BE PRECAST OR POURED IN PLACE
3. CONCRETE TESTING 4000 POUNDS PER SQUARE INCH.
4. STEEL REINFORCING SHOULD BE NO. 4 REAR. AATSM-A615 GRADE 60. PLACE APPROX. 6" OPPOSITE CORNER EACH WAY AND SECURELY TIED TOGETHER.
5. MINIMUM CONCRETE COVER OVER REINFORCING STEEL 5 INCHES.
6. WOOD FLOAT FINISH, LEAVING NO DEPRESSION.
7. CONTACT MVEC REPRESENTATIVE TO INSPECT BEFORE POURING CONCRETE.
8. A CLEAR AREA SHOULD BE MAINTAINED FOR 10 FEET IN FRONT OF PADMOUNT.
9. TOP OF PAD SHOULD BE A MIN OF 3" ABOVE GRADE AND BOTTOM OF PAD A MIN OF 5" BELOW GRADE.
10. CONDUITS SHOULD BE IN FRONT BUT NOT UNDER WEIGHT OF TRANSFORMER.

THREE PHASE PADMOUNT TRANSFORMER FOUNDATION AND BARRIER DETAIL



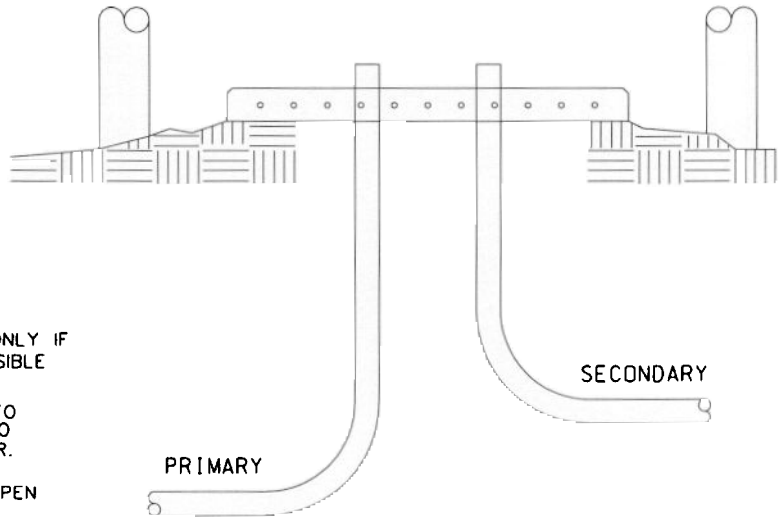
ISOMETRIC VIEW



TOP VIEW

BARRIER

BARRIER

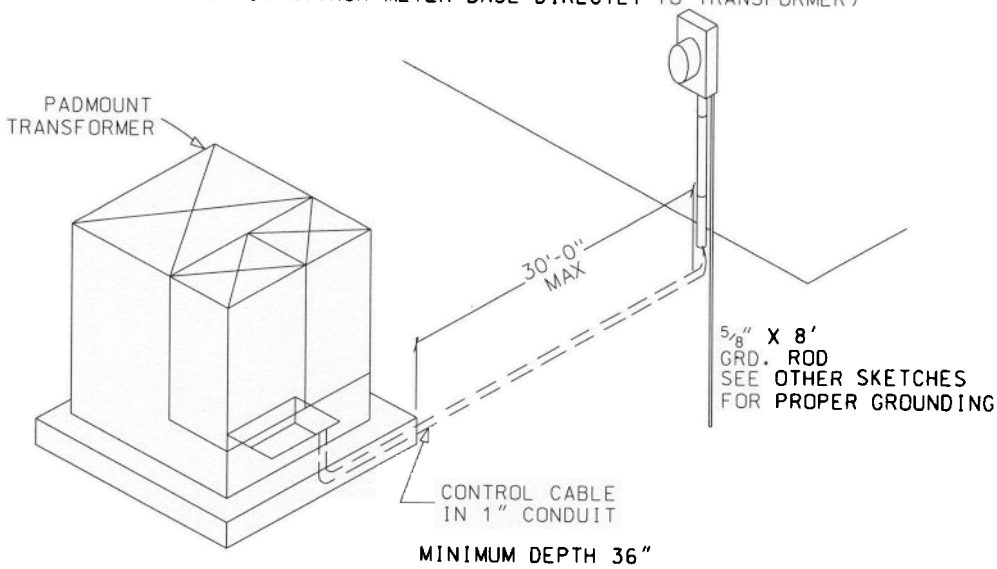


FRONT VIEW

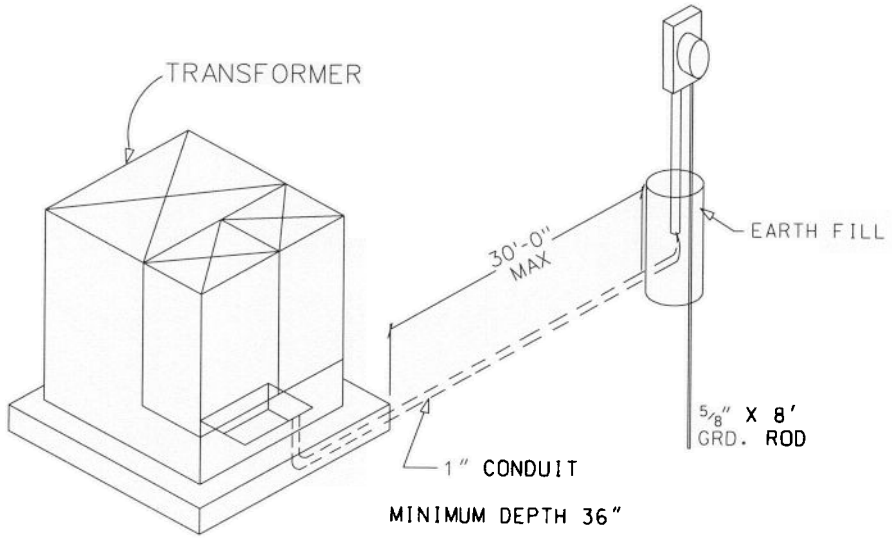
NOTES:
1. BARRIERS ARE NEEDED ONLY IF TRANSFORMER IS ACCESSIBLE TO VEHICLE DAMAGE.
2. BARRIERS ARE PLACED TO ALLOW OPEN ACCESS TO FRONT OF TRANSFORMER.
3. TRANSFORMER DOORS OPEN AS SHOWN ABOVE.

C.T METER INSTALLATION UNDERGROUND

(NOTE: DO NOT ATTACH METER BASE DIRECTLY TO TRANSFORMER)



METHOD 1



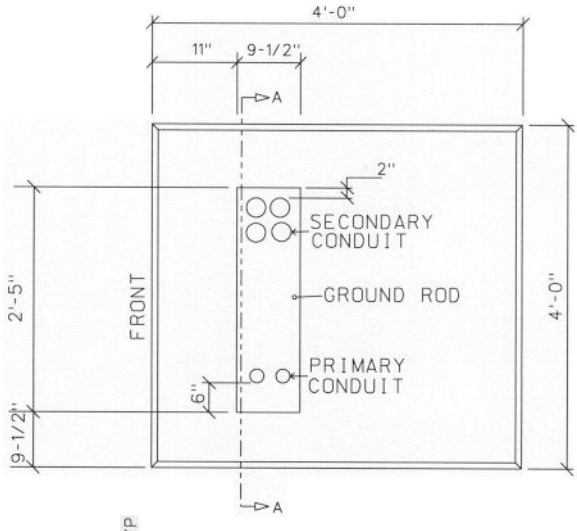
METHOD 2

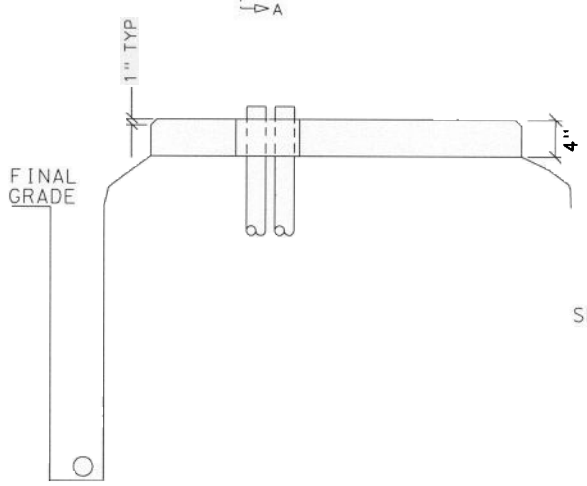
NOTES:

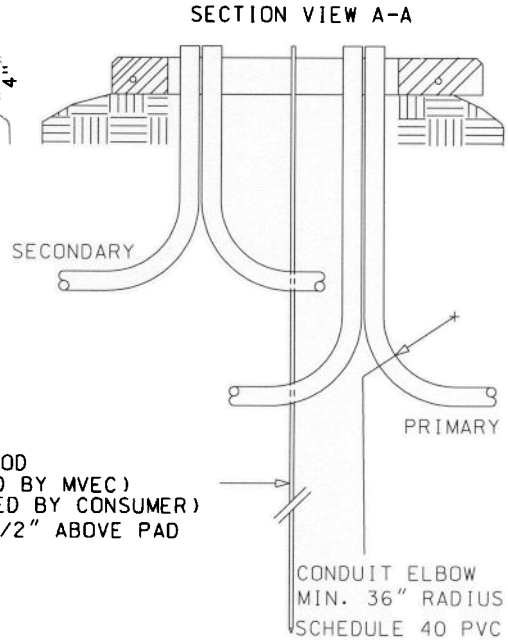
METHOD 1:
1. PREFERRED METHOD FOR INSTALLATION OF METERING IS TO MOUNT METER SOCKET OR CABINET ON BUILDING WALL.
2. METER HEIGHT SHALL BE 5'-0" TO CENTER OF METER.
3. METER SOCKET MUST NOT BE ATTACHED DIRECTLY TO PADMOUNT TRANSFORMER.
4. CONDUIT SHALL BE USED FOR SECONDARY CONTROL WIRES TO METER SOCKET.

METHOD 2:
1. METHOD TO USE IF METER SOCKET OR CABINET MUST BE MOUNTED FREE STANDING.
2. METER SOCKET MUST NOT BE ATTACHED DIRECTLY TO PADMOUNT TRANSFORMER.
3. 5'-0" MINIMUM HEIGHT TO CENTER OF METER.
4. CONDUIT SHALL BE USED FOR SECONDARY CONTROL WIRES TO METER SOCKET.

PAD ASSEMBLY FOR SINGLE PHASE PADMOUNT TRANSFORMER



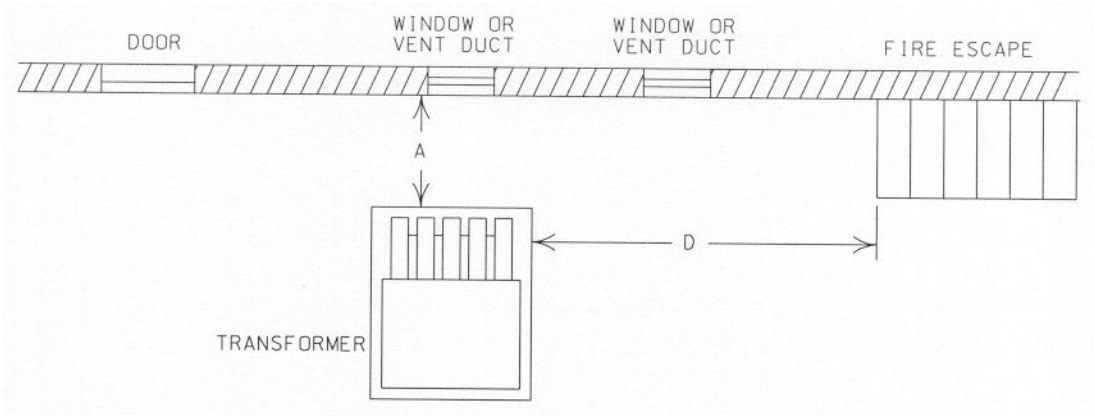


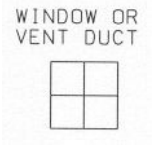


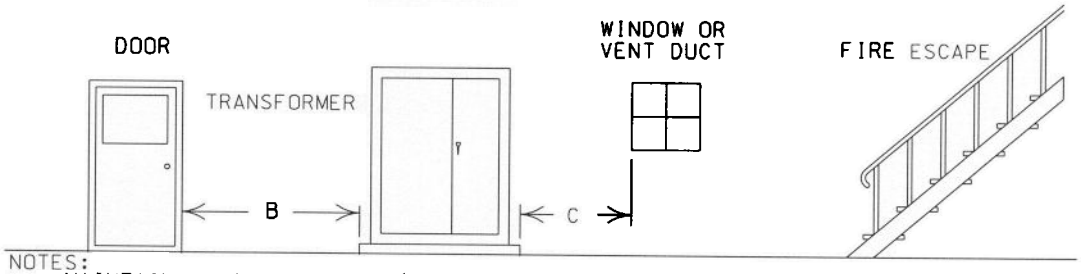
NOTES:

1. PAD ASSEMBLIES INCLUDE SITE PREPARATION, BEDDING AND DRAINAGE.
2. A CLEAR AREA SHOULD BE MAINTAINED FOR 10 FEET IN FRONT OF PADMOUNT.
3. CONDUITS SHOULD BE IN FRONT BUT NOT UNDER WEIGHT OF TRANSFORMER.
4. PRIMARY CONDUIT IS 48" BELOW FINAL GRADE
   SECONDARY CONDUIT IS 36" BELOW FINAL GRADE

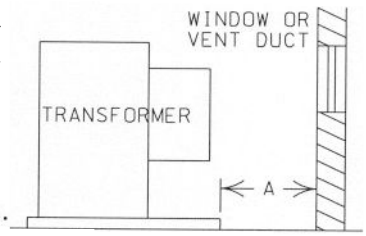
CLEARANCE REQUIREMENTS FOR OIL FILLED TRANSFORMERS AT BUILDINGS







NOTES:
1. MAINTAIN A MINIMUM OF 10' CLEARANCE IN FRONT OF TRANSFORMER FROM LANDSCAPE AND STRUCTURES FOR ACCESS. ADEQUATE SPACE REQUIRED FOR TRUCKS AND LIFTING EQUIPMENT.
2. DRAINAGE FLOW AROUND TRANSFORMER SHOULD BE AWAY FROM BUILDING.
3. NO COOLING TOWERS, GAS METERS, ETC., WITHIN 5' OF PAD.
4. NO PIPES OR CONDUITS UNDER PAD EXCEPT THOSE REQUIRED FOR TRANSFORMERS CONNECTIONS. EXCEPTIONS ALLOWED IF APPROVED BY MVEC.
5. NO PART OF BUILDING MAY EXTEND OVER TRANSFORMER.
6. FRONT OF TRANSFORMER FACING AWAY FROM BUILDING
7. IF TRANSFORMER SUBJECT TO VEHICULAR DAMAGE INSTALL BARRIERS
8. SEE OTHER SKETCHES FOR PAD, BARRIERS, AND CONDUIT. PAGES (50-59)



RIGHT VIEW

I. MINIMUM DIMENSIONS- FROM BRICK OR MASONRY BUILDING:
(SEE GUIDANCE IN NFPA-255-1990 AND IEEE STANDARDS)
A. 5' IN FRONT OF A WALL WITHOUT A WINDOW OR WITH A WINDOW 12' HIGH.
8' IN FRONT OF A WALL WITH A FIRE SAFETY GLASS WINDOW AND WINDOW LESS THAN 12' ABOVE GROUND.
12' IN FRONT OF A WALL WITH A WINDOW LESS THAN 12' HIGH

B. 8' ON THE SIDE OF DOORS.
C. 5' ON THE SIDE OF WINDOWS OR VENTS IF LESS THAN 12' ABOVE GROUND.
D. 20' AWAY FROM BOTTOM OF THE FIRE ESCAPE.

II. MINIMUM DIMENSIONS FROM BUILDING THAT IS NOT BRICK / MASONRY:
(SEE GUIDANCE IN NFPA-255-1990 AND IEEE STANDARDS)
A. 1. (TRANSFORMER SIZE 75KVA OR LESS)
10' IN FRONT OF WALL WITH WINDOW OR WITH A WINDOW 12' HIGH OR HIGHER
10' IN FRONT OF WALL WITH FIRE SAFETY GLASS WINDOW & WINDOW IS BELOW 12'
12' IN FRONT OF WALL WITH A WINDOW LESS THAN 12' HIGH

2. (TRANSFORMER SIZE IS BETWEEN 100KVA- 333KVA)
20' IN FRONT OF A WALL

3. (TRANSFORMER SIZE IS LARGER THAN 333KVA
30' IN FRONT OF A WALL

PRIMARY TRENCH DETAIL
CONDUIT SYSTEM

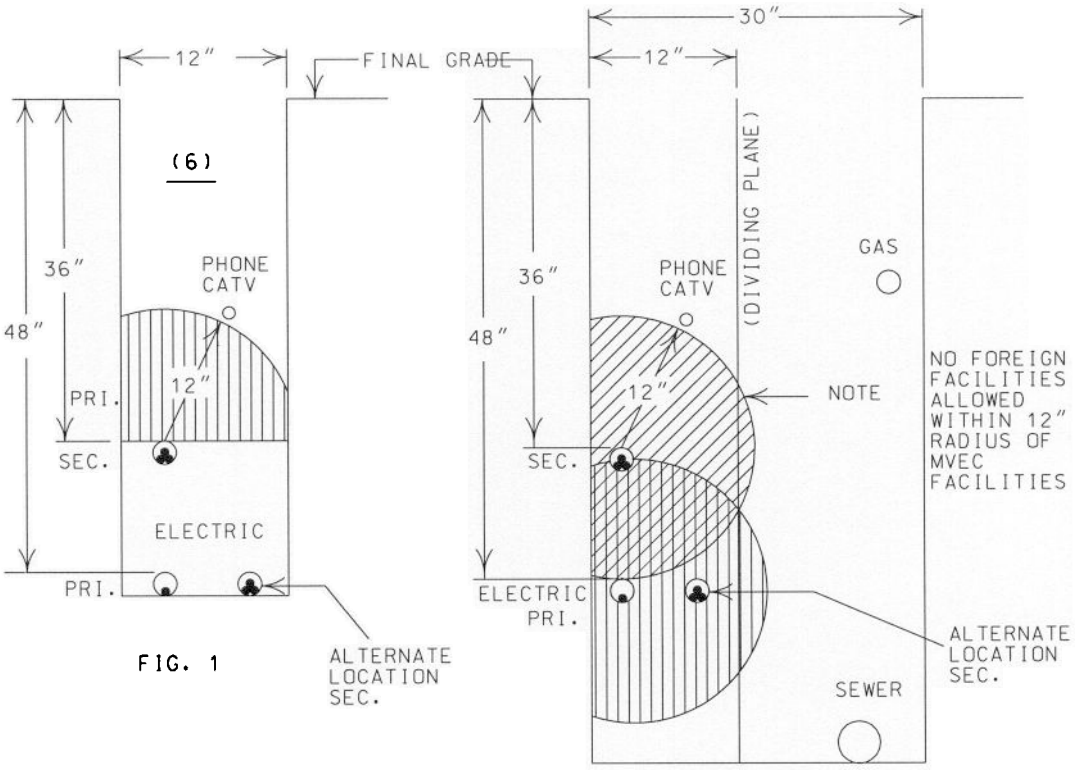


FIG. 1

FIG. 2

1. THE SEPARATION BETWEEN MVEC CONDUIT SYSTEM AND OTHER UNDERGROUND STRUCTURES PARALLELING IT SHOULD BE AS LARGE AS NECESSARY TO PERMIT MAINTENANCE OF THE SYSTEM WITHOUT DAMAGE TO THE PARALLELING STRUCTURES. A CONDUIT WHICH CROSSES OVER OTHER SUBSURFACE STRUCTURES SHALL HAVE A SEPARATION SUFFICIENT TO PREVENT DAMAGE TO EITHER STRUCTURE. THESE SEPARATIONS SHOULD BE DETERMINED BY THE PARTIES INVOLVED.

2. MVEC CONDUIT SYSTEM SHOULD BE SEPARATED FROM CONDUIT SYSTEMS TO BE USED FOR COMMUNICATIONS CONDUCTORS (PHONE, CATV) BY A MINIMUM OF 12 INCHES OF WELL TAMPED DIRT. (FIG. 1)

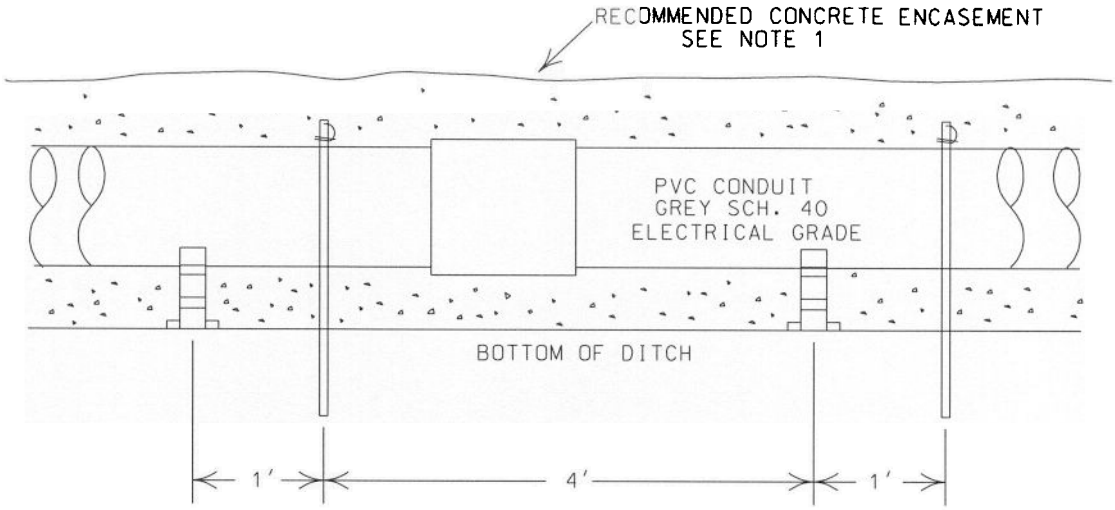
3. IF CONDITIONS REQUIRE MVEC CONDUIT SYSTEM TO BE INSTALLED PARALLEL TO AND DIRECTLY OVER A SANITARY OR STORM SEWER, IT MAY BE DONE PROVIDED BOTH PARTIES ARE IN AGREEMENT AS TO THE METHOD. WHERE A CONDUIT RUN CROSSES A SEWER, IT SHALL BE DESIGNED TO HAVE SUITABLE SUPPORT ON EACH SIDE OF THE SEWER TO PREVENT TRANSFERRING ANY DIRECT LOAD ONTO THE SEWER.

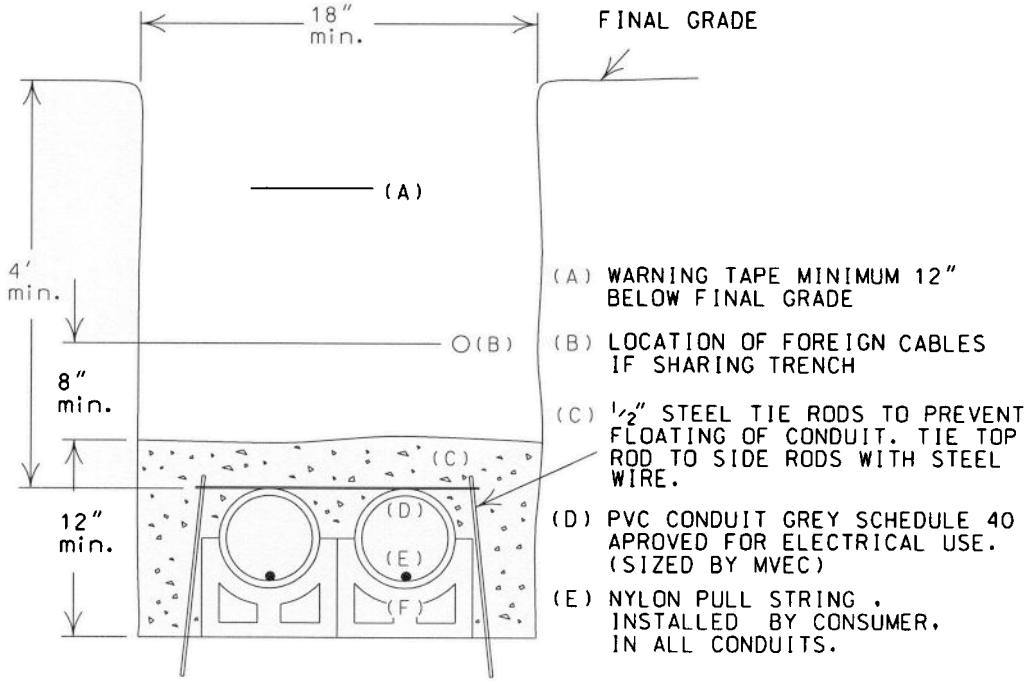
4. MVEC CONDUIT SYSTEM SHOULD BE INSTALLED AS FAR AS PRACTICAL FROM A WATER MAIN IN ORDER TO PROTECT IT FROM BEING UNDERMINED IF THE MAIN BREAKS.

5. WHERE TRENCH IS TO BE USED FOR OTHER UTILITIES IN ADDITION TO TELEPHONE AND/OR TELEVISION CABLES SUCH AS WATER, GAS, OR SEWER LINES, SPECIAL ARRANGEMENTS ON LOCATION OF THE FACILITIES MUST BE MADE. THE VARIOUS UTILITIES MUST BE ARRANGED SUCH THAT THE SEWER, GAS, AND WATER LINES AT THEIR RESPECTIVE LEVELS, OCCUPY ONE SIDE OF THE TRENCH AND THE ELECTRIC, TELEPHONE, AND TELEVISION OCCUPY THE OTHER SIDE (SEE FIG. 2). THE TRENCH DIMENSIONS SHALL BE INCREASED IN WIDTH OR DEPTH AS NECESSARY TO MAINTAIN MINIMUM HORIZONTAL AND VERTICAL SEPARATIONS BETWEEN UTILITIES.

6. INSTALLATION OF YELLOW UNDERGROUND MARKING TAPE SHOULD BE 6"-12" BELLOW FINAL GRADE.

MINIMUM REQUIREMENTS FOR CONCRETE ENCASED CONDUIT
(2 CONDUITS-RADIAL FEED)
(-1 CONDUIT- LOOP FEED)





(A) WARNING TAPE MINIMUM 12" BELOW FINAL GRADE

(B) LOCATION OF FOREIGN CABLES IF SHARING TRENCH

(C) ½" STEEL TIE RODS TO PREVENT FLOATING OF CONDUIT. TIE TOP ROD TO SIDE RODS WITH STEEL WIRE.

(D) PVC CONDUIT GREY SCHEDULE 40 APROVED FOR ELECTRICAL USE. (SIZED BY MVEC)

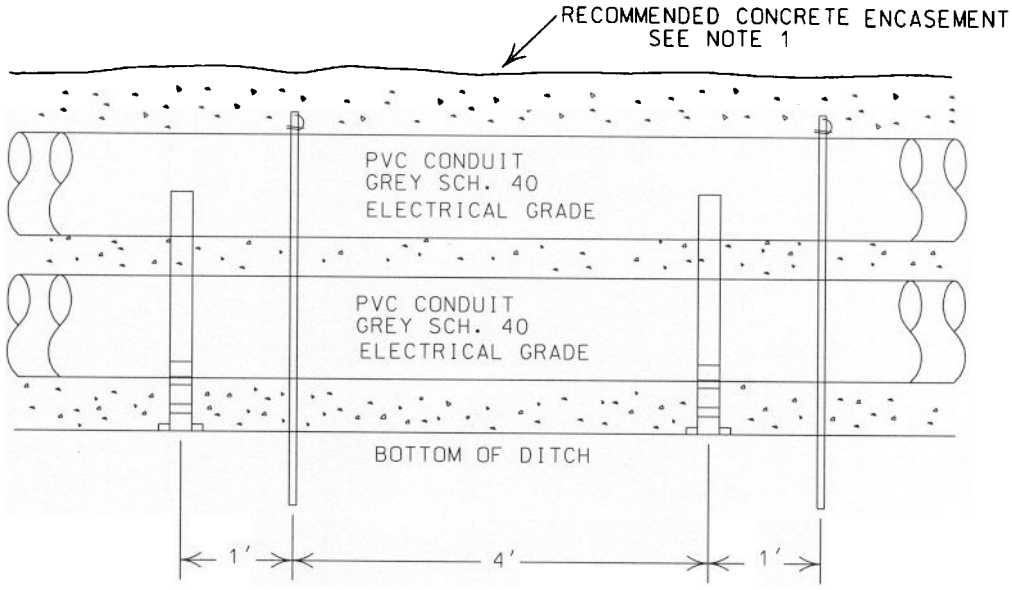
(E) NYLON PULL STRING . INSTALLED BY CONSUMER, IN ALL CONDUITS.

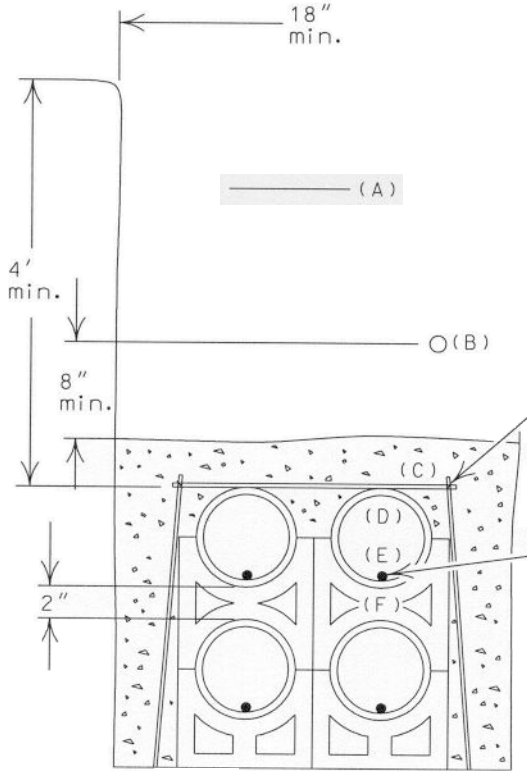
(F) PLASTIC CONDUIT SPACER CLAMPS

NOTES:
1. CONCRETE TO BE 1:3:6 MIX WITH NO AGGREGATE LARGER THAN ¾" - 3" MINIMUM COVER REQUIRE AROUND ALL CONDUITS.
2. MVEC REPRESENTATIVE TO INSPECT AND APPROVE CONDUIT INSTALLATION PRIOR TO CONCRETE ENCASEMENT.

(2001)

MINIMUM REQUIREMENTS FOR CONCRETE ENCASED CONDUIT (FOUR CONDUITS)





FINAL GRADE

WARNING TAPE MINIMUM 12" BELOW FINAL GRADE

LOCATION OF FOREIGN CABLES IF SHARING TRENCH

$\frac{1}{2}$" STEEL TIE RODS TO PREVENT FLOATING OF CONDUIT. TIE TOP ROD TO SIDE RODS WITH STEEL WIRE.

(D) PVC CONDUIT GREY SCHEDULE 40 APROVED FOR ELECTRICAL USE. (SIZED BY MVEC)

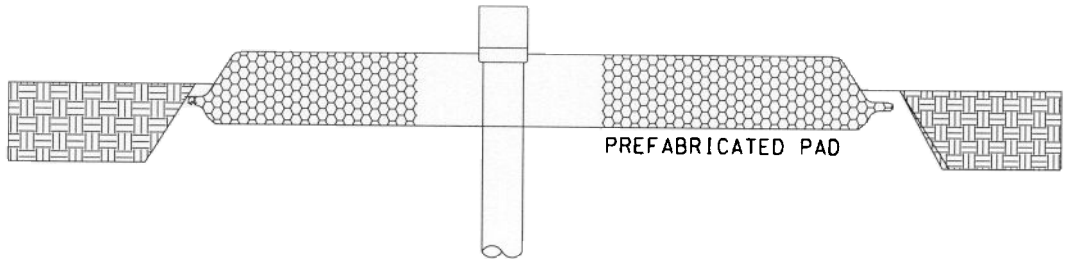
(E) NYLON PULL STRING, INSTALLED BY CONSUMER, IN ALL CONDUITS.

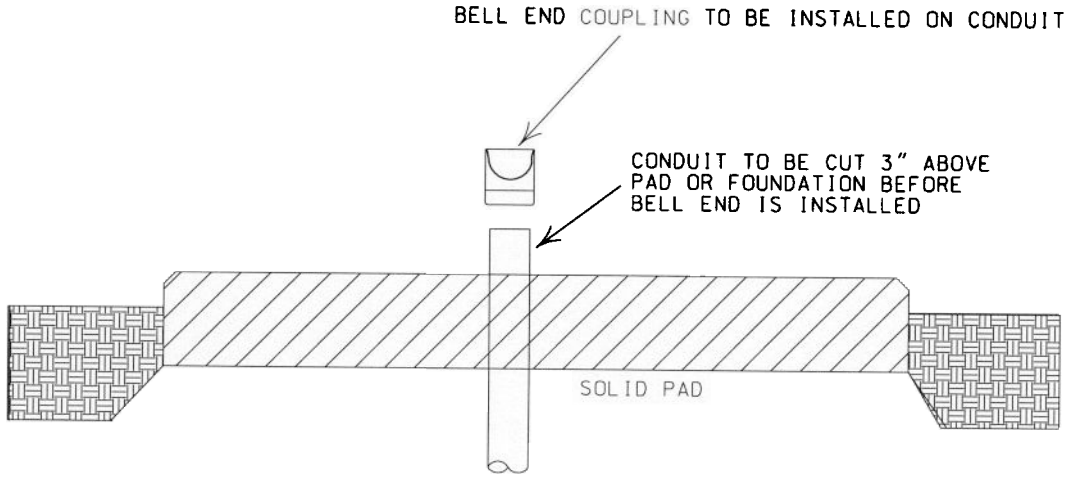
(F) PLASTIC CONDUIT SPACER CLAMPS

NOTES:

1. CONCRETE TO BE 1:3:6 MIX WITH NO AGGREGATE LARGER THAN $\frac{3}{4}$". 3" MINIMUM COVER REQUIRED AROUND ALL CONDUITS.
2. MVEC REPRESENTATIVE TO INSPECT AND APPROVE CONDUIT INSTALLATION PRIOR TO CONCRETE ENCASEMENT.

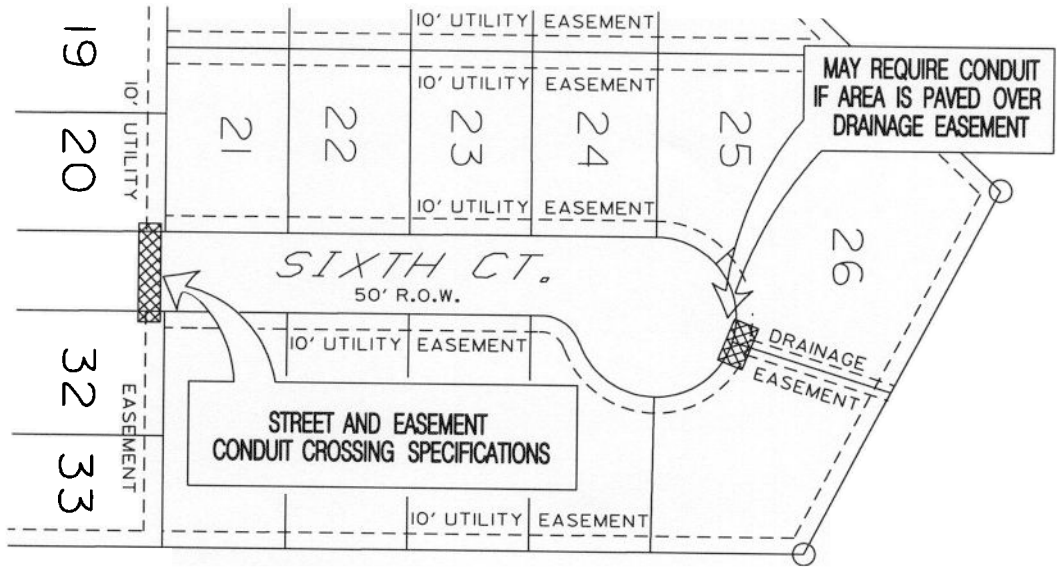
BELL END COUPLING INSTALLATION CONDUIT TERMINATIONS





NOTE:
PLACE BELL COUPLING ON END OF CONDUIT.
(EXCEPTION METER ENCLOSURES)
COVER ENDS OF UNUSED CONDUITS.
(BELL COUPLING DESIGNED TO PREVENT DAMAGE TO WIRE WHEN PULLED)

UNDERGROUND ROAD CROSSING DETAIL



DEVELOPER OR CONTRACTOR :

INSTALL CONDUIT WITH PULL STRING IN SPECIFIED STREET CROSSING LOCATIONS. PLEASE EXTEND CONDUIT FIVE FEET PAST RIGHT OF WAY WITH TEMPORARY CONDUIT END CAPS. WHEN WATER LINE, GAS LINE, AND SEWER LINE EASEMENTS CROSS ELECTRICAL EASEMENTS, ENCASE CONDUIT IN CONCRETE (- 1' FOOT COVERING). PLEASE EXTEND CONDUIT THREE FEET BEYOND EASEMENTS. PLEASE USE A WOODEN 2X4 OR OTHER VISIBLE UTILITY MARKERS (PVC OR STEEL) TO LOCATE CONDUIT CROSSING ENDS. THE UTILITY MARKERS ARE A MINIMUM OF TWO FEET ABOVE FINAL GRADE.