SINGLE PHASE SOCKETS

1.07.1

120V 2W 1Ø (OFF 120/240V 1Ø 3W)

REFER TO DWG: 4.02.1

120V 2W 1Ø (OFF 120/208V 3Ø 4W)

REFER TO DWG: 4.02.1

120/240V 1Ø 3W

REFER TO DWG: 4.02.2 THRU 4.02.7

120/208V 1Ø 3W (OFF 120/208V 3Ø 4W)

REFER TO DWG: 4.02.14

240/480V 1Ø 3W

REFER TO DWG: 4.02.9

SECTION 1.07A

SECTION 1.07A

SECTION 1.07B

SECTION 1.07C

SECTION 1.07D

OVERHEAD ONLY

ISSUED DATE_________
SINGLE PHASE INSTRUMENT TRANSFORMERS (CT’S)

120/240V 1Ø 3W

INSTRUMENT CABINET

CT3
H1
H2

NEUTRAL BONDED TO CABINET

135V

135V

340V

SECTION 1.07B

INSTRUMENT TRANSFORMER METER SOCKET

1” MIN STEEL CONDUIT FOR THE DISTRICT’S METERING INSTRUMENT
Wiring


REFER TO DRAW:

METER DIAGRAM: 4.04.3
RESIDENTIAL & GENERAL SERVICE OVERHEAD: 6.10
RESIDENTIAL UNDERGROUND: 7.07
GENERAL SERVICE UNDERGROUND: 8.04

Revised 07-03-00 By BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE________
THREE PHASE, 4 WIRE, WYE SOCKETS

SECTION 1.07E
120/208V 3Ø 4W

SECTION 1.07F
277/480V 3Ø 4W

REFER TO DWG: 4.02.13

THREE PHASE, 4 WIRE, WYE INSTRUMENT TRANSFORMERS (CT’S & PT’S)

SECTION 1.07E
120/208V 3Ø 4W

SECTION 1.07F
277/480V 3Ø 4W
INSTRUMENT CABINET

REFER TO DRAWINGS:
METER DIAGRAM: 4.04.14
4.04.18
4.04.16
4.04.17

GENERAL SERVICE OVERHEAD: 6.10
GENERAL SERVICE UNDERGROUND: 5.06
METER ON PADMOUNT: 5.05.2

*PT'S WHEN REQUIRED

1" A.W.G. STEEL CONDUIT
FOR METER INSTALLATION

INSTRUMENT TRANSFORMER
METER SOCKET

NEUTRAL BONDED TO CABINET

REVISED 06-29-01  BY  BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE______
THREE PHASE, 3-WIRE, CLOSED DELTA INSTRUMENT TRANSFORMERS (CT’S & PT’S)

SECTION 1.07G
OVERHEAD ONLY

SECTION 1.07I

240V 3W DELTA

480V 3W DELTA – NOT FOR NEW CONSTRUCTION

REFER TO DWGS:

METER DIAGRAMS: 4.06.6
4.06.9
4.06.10
4.06.11

GENERAL SERVICE OVERHEAD: 8.06
GENERAL SERVICE UNDERGROUND: 7.07
METER ON PADMOUNT: 8.88.8
THREE PHASE, 4-WIRE, CLOSED DELTA SOCKETS

SECTION 1.07H
OVERHEAD ONLY

NOTE: MAXIMUM SINGLE PHASE LOAD IS LIMITED TO FIVE PER CENT OF THE TOTAL LOAD ON BANK

THREE PHASE, 4-WIRE, CLOSED DELTA INSTRUMENT TRANSFORMERS (CT’S)

SECTION 1.07H
OVERHEAD ONLY

CT1 AND CT2 HAVE THE SAME RATIO
CT3 HAS A RATIO HALF OF CT1 AND CT2
- CT1 - 4800
- CT2 - 4800
- CT3 - 2400

Revised 06-29-01 By BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE
THREE PHASE, 4-WIRE, OPEN DELTA SOCKETS

SECTION 1.07K
OVERHEAD ONLY

120/240/240V 3Ø 4W

WILD LIG

THE WILD LIG SHOULD BE RUN TO THE RIGHT SIDE TERMINAL, AS YOU FACE THE SOCKET.

LOAD 1Ø 120/240V
LOAD 3Ø 240V DELTA

REFER TO DWG# 4.02.12

THREE PHASE, 4-WIRE, OPEN DELTA INSTRUMENT TRANSFORMERS (CT’S)

SECTION 1.07K
OVERHEAD ONLY

INSTRUMENT CABINET

WILD LIG

THE WILD LIG SHOULD BE RUN TO THE RIGHT SIDE CT, AS YOU FACE THE CABINET.

METER SOCKET

INSTRUMENT TRANSFORMer

1” MIN STEEL CONDUIT FOR THE DISTRICT'S METERING INSTRUMENT WIRING

CT1 AND CT2 HAVE THE SAME RATIO
CT3 HAS A RATIO HALF OF CT1 AND CT2
Ia CT1 - 4000A
CT2 - 4000A
CT3 - 2000A

REFER TO DWG# 4.06.13
OVER# 4.10
UWGND SEC DIP: 5.06

Revised 06-29-01 By BED
DESIGN ENTRY BY: ROBERT B ADMAS

ISSUED DATE_________
6-WIRE TOTALIZED SERVICE
LIMITED TO EXISTING 6-WIRE CUSTOMERS ONLY

1.07.9

POWER
TRANSFORMERS

A 6W CUSTOMER (1.07W) COULD
BE FED FROM A 4W BANK
(1.07W), BUT NOT VICE-VERSA

SECTION
1.07O

NOT FOR NEW
CONSTRUCTION

1.07B
FDMT
1.07B
OVMO

REFER TO
DWG: 4.04.4
4.04.5
4.04.6
4.04.7

5-WIRE TOTALIZED SERVICE
LIMITED TO EXISTING 5-WIRE CUSTOMERS ONLY

SECTION
1.07P

NOT FOR NEW
CONSTRUCTION

120V
240V
1W

ISOLATES 240V 2W FROM 10 3W TO
AVOID FLICKER FROM WELDERS, ETC.

10 3W

REFER TO
DWG: 4.02.8
TWO CIRCUIT TOTALIZED
THREE PHASE, 4-WIRE, WYE

1.07.10

SECTION 1.07Q

4W TOTALIZED SERVICE
2 CIRCUIT TOTALIZE WYE

INSTRUMENT CABINET
NEUTRAL BONDED TO CABINET
1" MIN. STEEL CONDUIT
FOR THE DISTRICT'S METERING INSTRUMENT
WIRING

INSTRUMENT TRANSFORMER
METER SOCKET
EXACT NUMBER OF METER SOCKETS VARY
(MAXIMUM OF 4)

TOTALIZERS

INSTRUMENT TRANSFORMER
METER SOCKET

120/208V OR 277/480V LOAD
120/208V OR 277/480V LOAD

REFER TO DRAWING: 4.06.10

Revised 09-15-08 By SAH
DESIGN ENTRY BY: ROBERT B. ADAMS

ISSUED DATE________
TWO CIRCUIT TOTALIZED
THREE PHASE, 3-WIRE, CLOSED DELTA

1.07.11

SECTION 1.07Q

3W DELTA TOTALIZED SERVICE

1/" MIN STEEL CONDUIT
FOR THE DISTRICT'S
METERING INSTRUMENT
WIRING

INSTRUMENT TRANSFORMER
METER SOCKET

TOTALIZERS

INSTRUMENT TRANSFORMER
METER SOCKET

EXACT NUMBER OF METER SOCKETS VARY
(MAXIMUM OF 4)

REFER TO Dwg: 4.06.12

240V OR 480V DELTA LOAD

240V OR 480V DELTA LOAD

NOT FOR NEW CONSTRUCTION

Revised 09-15-08  By SAH
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE________
PRIMARY METERING
2400V, 4160V, THREE PHASE, 3-WIRE, CLOSED DELTA

1.07.13

SECTION 1.07R

EQUIPMENT GROUNDING CONDUCTOR

INSTRUMENT CABINET

CT'S

H1, H2, H3

INSTRUMENT TRANSFORMER METER SOCKET

1" MIN STEEL CONDUT FOR THE DISTRICT'S METERING INSTRUMENT WIRING

"PT'S WHEN REQUIRED

REVISED 07-03-00  BY BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE
SINGLE PHASE TWO WIRE METERING
120 VOLT SERVICE - ONE KILOWATT MAXIMUM

4.02.1

NOTES:
TO BE WIRED AS SHOWN
HOT SIDE TO LEFT, FACING SOCKET

SOURCE

LOAD

FRONT VIEW
COVER REMOVED

METER SOCKET: 9008006686
(by customer)

Revised 09-15-08 By SAH
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE________
SURFACE TYPE METER SOCKET

120/240 VOLT 3-WIRE
150 AMPERES OVERHEAD SERVICE

NOTE:

METER SOCKET 000066616
BY CUSTOMER

TERMINALS FOR MAXIMUM 250 KCMIL CONDUCTORS

METER SOCKET AVAILABLE WITH FOURTH TERMINAL FOR THREE WIRE WYE SERVICE

METER CABINET AVAILABLE WITH 1 1/4", 1 1/2", 2", OR 2 1/2" INTERCHANGEABLE HUB OR BLANK COVER PLATE

3 KNOCKOUTS FOR 1" TO 1 1/2" CONDUIT IN SIDES AND BACK

FRONT VIEW
COVER REMOVED

SIDE VIEW
COVER IN PLACE

BOTTOM VIEW
2 KNOCKOUTS FOR 1/2" TO 1 1/2" CONDUIT
1 KNOCKOUT FOR 1/2" TO 3" CONDUIT
1 KNOCKOUT 1/4" FOR EQUIPMENT GROUND

Revised 09-15-08 By SAH
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE________
SURFACE TYPE METER SOCKET

HIGH CAPACITY
120/240 VOLT 3-WIRE 200 AMPERES
OVERHEAD SERVICE

4.02.3
M250
M250D
120/208V 16 SW: M250
M250D

NOTES:

TERMINALS FOR MAXIMUM 250 KCMIL CONDUCTORS

METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THREE WIRE WYE SERVICE

METER CABINET AVAILABLE WITH 1 1/2", 2", OR 2 1/2" INTERCHANGEABLE HUB OR BLANK COVER PLATE

METER SOCKET 0863066577
(by customer)

3 KNOCKOUTS FOR 1 1/2", 2", OR 2 1/2" CONDUIT IN SIDES AND BACK

BOTTOM VIEW
3 KNOCKOUTS FOR 1 1/2", 2", OR 2 1/2" CONDUIT

FRONT VIEW
COVER REMOVED

SIDE VIEW
COVER IN PLACE

Rev 09-15-08  By SAH
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE_________
**SURFACE TYPE METER SOCKET**

**120/240 VOLT 3-WIRE 200 AMPERE UNDERGROUND SERVICE**

"GENERAL SERVICE ONLY"

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**4.02.4**

- M21L, M21LD
- M22L, M22LD
- T22/V22/L1 15 3W; M225, M221D
- M225, M225D

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**METER SOCKET**

- METER SOCKET 080086417 (BY CUSTOMER)
- 36" MIN
- OBSTRUCTION

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**NOTES:**

- TERMINALS FOR MAXIMUM 500 KCMIL COPPER OR ALUMINUM CONDUCTOR.
- METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THREE WIRE 120/208 SERVICE.
- A GROUND ROG (NEC SUPPLEMENTAL) MUST BE INSTALLED NEAR THE METER SOCKET WITH A GROUNDING CONDUCTOR RUNNING FROM THE GROUND ROG TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.
- SOURCE AND LOAD CONDUCT CAN BE INTERCHANGEABLE.
- ALL GENERAL SERVICE SELF CONTAINED METER SOCKETS SHALL INCLUDE A LEVER BYPASS.

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**FINAL GRADE**

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**KNOCKOUT LOCATION**

- LEFT VIEW
- FRONT VIEW
- COVER OFF
- RIGHT VIEW

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2 1/2" MAX KNOCKOUTS

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**KNOCKOUTS FOR CONTRACTOR'S EQUIPMENT GROUNDING**

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**REFER TO DWG 6.04.1**

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Revised 10-15-08 By SAH

Design Entry By: Julia Victor

Issued Date: ________
SURFACE TYPE METER SOCKET

HIGH CAPACITY
120/240 VOLT 3 WIRE 200 AMPERES
UNDERGROUND SERVICE

NOTES:
TERMINALS FOR MAXIMUM 250 MCM CONDUCTORS
METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THIRD WIRE VTE SERVICE
METER SOCKET 9906006617

3 KNOCKOUTS FOR 1 1/2", 2", OR 2 1/2" CONDUIT IN SIDES AND BACK
THIS KNOCKOUT FOR OPPD USE

2 1/2" RIGID GALVANIZED CONDUIT WITH NON-METALLIC BRUSHING BY CUSTOMER IN ALL NON-RESIDENTIAL APPLICATIONS.
OPPD WILL FURNISH A NON-METALLIC BRUSH IN SINGLE FAMILY RESIDENTIAL APPLICATION

FRONT VIEW
COVER REMOVED

SIDE VIEW
COVER IN PLACE

BOTTOM VIEW
3 KNOCKOUTS FOR 1 1/2", 2", OR 2 1/2" CONDUIT
1Ø SURFACE TYPE METER SOCKET

120/240 VOLT 3-WIRE 320 AMPERES
OVERHEAD SERVICE

4.02.6
M139
M139D

NOTES:

SOURCE:
SINGLE LUG – 350 KCAM1 TO 600 KCAM1

LOAD:
SINGLE LUG – 600 KCAM1
DOUBLE LUG – 320 KCAM1

METER SOCKET 908004618
(By Customer)

2 KNOCKOUTS FOR 2" TO 2 1/2"
CONDUIT IN SIDES AND BACK

FRONT VIEW
COVER REMOVED

SIDE VIEW
COVER IN PLACE

2 KNOCKOUTS FOR 1 1/2" TO 3"
CONDUIT
1 KNOCKOUT FOR 1 1/2" TO 2 1/2" CONDUIT
1 KNOCKOUT 1/4" & 1/2" EQUIPMENT GROUND

BOTTOM VIEW
SURFACE TYPE METER SOCKET

120/240 VOLT 3-WIRE 320 AMPERE UNDERGROUND SERVICE
"GENERAL SERVICE ONLY"

NOTE:
A minimum clear working space of 2.5 ft above, below, and necessary side working clearance, as well as 36" horizontally in front of the metering, shall be provided and maintained.

A ground rod (NEC supplemental ground) must be installed near the meter socket with an equipment grounding conductor running from the ground rod to the grounding lug provided in the meter socket.

Source and load conduct cannot be interchanged.

EXPANSION JOINT
WHEN REQUIRED
BY INSPECTING
AUTHORITY
(SIL CLIP)

SOURCE

LOAD

TO GROUND ROD

METAL SOCKET
BORSatORING
(SIL CUSTOMER)

24" MINI

OBSERVATION

FILL GRADE

REFER TO DRAW: 8.04.2

Revised 10-15-08 By SAH
DESIGN ENTRY BY: JULIA VICTOR

ISSUED DATE
SOCKET TYPE TOTALIZED METERING

CLASS 100 - RATING 24KVA OF 10 120/240V AND 24KVA OF 10 240V
CLASS 200 - RATING 48KVA OF 10 120/240V AND 48KVA OF 10 240V

4.02.8

M190
M190

NOT FOR NEW CONSTRUCTION

NOTES:

THIS METHOD OF METERING IS TO BE USED ONLY AT SPECIAL LOCATIONS, WHERE IT IS NECESSARY TO SERVE A 10 240V LOAD FROM A SEPARATE SOURCE, IN ORDER TO AVOID VOLTAGE DIPS ON THE 10 120/240V LOAD.

SERVICE ENTRANCE WIRES FOR THE 10 240V LOAD MUST BE PERMANENTLY IDENTIFIED TO DISTINGUISH THEM FROM THE 10 120/240V LOAD WIRE.
THREE WIRE SINGLE PHASE 480 VOLT

FIVE TERMINAL SOCKET D809806516 (BY CUSTOMER)

MINIMUM - 6' 6" MAXIMUM - 12' 6"

LOAD 10 3W 245489V

GRADE OR SUBSTANIAL STANDING SURFACE

M984
M984D

4.02.9

Revised 09-15-08  By SAH
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE__________
30 THREE WIRE SOCKET METERING

— 240 VOLT —
CLASS 200 – RATING 83KVA ON BALANCED LOAD

— 480 VOLT —
CLASS 200 – RATING 166KVA ON BALANCED LOAD
FOR MAINTENANCE ONLY

4.02.10
M320
M320D
M340
M340D

SYSTEM NEUTRAL

POWER TRANSFORMER(S)

TRANSFORMER CASE GROUND

EQUIPMENT GROUND ONLY

FIFTH TERMINAL AND B PHASE
CONDUCTOR SHALL BE CONNECTED
WITH #12 AWG INSULATED
COPPER WIRE BY CONTRACTOR

FIVE TERMINAL SOCKET 0000006617
(BY CUSTOMER)

CENTER CONDUCTOR
NOT GROUNDED ON
DELTA CONNECTION

GRADE OR SUBSTANTIAL
STANDING SURFACE

2'-6" MINIMUM – 5'-6" MAXIMUM

LOAD
38
240V OR
480V DELTA

Revised 03-14-13 By AMJ
DESIGN ENTRY BY: GRETE H SCHOLZ
ISSUED DATE
THREE PHASE THREE WIRE METERING
480 VOLT FROM WYE-CONNECTED TRANSFORMER SECONDARIES
— SOCKET TYPE —
CLASS 100 – RATING 100 AMPERES TOTAL PER PHASE ON BALANCED LOAD
CLASS 200 – RATING 200 AMPERES TOTAL PER PHASE ON BALANCED LOAD
TYPICAL IRRIGATION–PUMP METER–POLE

4.02.11

M360
M360D
30 WYE CONNECTED TRANSFORMER SECONDARIES

SERVICE ENTRANCE HEAD TO BE MOUNTED 2" ABOVE TOP CONDUCTOR
LIGHTNING ARRESTER FURNISHED BY OPPD FOR 38 600 VOLTS

POLE AS REQUIRED TO PROVIDE SAFE CLEARANCE, GUY WHEN REQUIRED

4 SPOOL RACK FURNISHED BY OPPD, NEUTRAL CONDUCTOR ON TOP AND CONNECTED TO GROUND OF LIGHTNING ARRESTERS
CONDUIT AS REQUIRED
BUSHINGS WHEN REQUIRED

480V METER, FURNISHED AND INSTALLED BY OPPD

GROUND WIRE TO BE NUMBER 6 BARE COPPER OR LARGER
GROUND ROD, 1/2" X 8’–9” MINIMUM

NOTE:
ALL MATERIAL TO BE “NATIONAL ELECTRICAL CODE” GRADE AND TO BE FURNISHED AND INSTALLED BY CUSTOMER, EXCEPT WHERE NOTED.

EQUIPMENT GROUND ONLY
LOAD 38 480V

FIVE TERMINAL METER SOCKET 000006612 (BY CUSTOMER)

SECONDARY LIGHTNING ARRESTER

Revised 03–14–13 By AMJ
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE
FOUR WIRE DELTA SOCKET METERING

CLASS 200 - RATING 200 AMPERES TOTAL PER PHASE ON BALANCED LOAD

NOTES:

1. TERMINALS FOR MAXIMUM 300 KCMIL COPPER OR ALUMINUM CONDUCTORS.

2. RISER PIPE MUST BE AN EMT, RIGID CONDUIT OR SCHEDULE 80 PVC.

3. PVC WEATHER HEAD MUST BE USED ON PVC RISER.

4. A GROUND ROD (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUND ROD TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

5. CONTRACTOR MUST USE THE KNOCKOUTS DESCRIBED BELOW. DO NOT USE ANY OTHER KNOCKOUT OR DRILL ANY OTHER HOLES IN THE METER SOCKET. KNOCKOUT LOCATIONS ON DRAWING ARE APPROXIMATE AND NOT DRAWN TO SCALE.

6. TERMINAL SURFACE SOCKET METER SOCKET 8099086914 (BY CUSTOMER)

7. KNOCKOUTS EACH LOWER SIDE FOR 1 1/2" TO 3" CONDUIT

8. KNOCKOUT IN BOTTOM FOR 1/2" TO 1" CONDUIT

9. KNOCKOUT IN BOTTOM FOR 1 1/2" TO 3 1/2" CONDUIT

10. LOAD 10 240V DELTA

11. LOAD 30 240V DELTA

GRADE OR SUBSTANTIAL STANDING SURFACE

1/4" TO 7/8" KNOCKOUT IN BOTTOM

2-1/4" MINIMUM - 2 1/4" MAXIMUM

Revised 09-15-08 By SAH

DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE_________
OVERHEAD 3Ø FOUR-WIRE WYE SOCKET METERING

120/208V-CLASS 200-RATING 72KVA ON BALANCED LOAD
277/480V-CLASS 200-RATING 166KVA ON BALANCED LOAD

POWER TRANSFORMER (5)

TERMINATIONS FOR MAXIMUM
250 KCMIL COPPER OR ALUMINUM
CONDUCTOR.

GROUNDING CONDUCTORS MUST BE A
SET OF THREE E.P.C. PROTECTIVE
ROD, WITH A GROUNDING BOLT.

PVC WEATHER HEAD MUST
BE USED ON PVC RODS.

GROUND ROB (NEC SUPPLEMENTAL
GROUND) MUST BE INSTALLED NEAR
THE METER SOCKET WITH AN
EQUIPMENT GROUNDING CONDUCTOR
RUNNING FROM THE GROUND
ROB TO THE GROUNDING LUG
PROVIDED IN THE METER SOCKET.

CONTRACTOR MUST USE THE
KNOCKOUTS DESCRIBED BELOW.
DO NOT USE ANY OTHER KNOCKOUT
OR BORE ANY OTHER HOLES IN THE
METER SOCKET. KNOCKOUT
LOCATIONS SHOWN HEREIN ARE
APPROXIMATE AND NOT DRAWN
to SCALE.

KNOCKOUT LOCATION

LEFT VIEW
FRONT VIEW COVER OFF
RIGHT VIEW

3" KNOCKOUTS FOR LOAD CONDUCTORS

2 1/2" KNOCKOUTS FOR LOAD CONDUCTORS

KNOCKOUTS FOR CONTRACTOR'S
EQUIPMENT GROUNDING CONDUCTORS

Revised 09-15-08 By SAH
DESIGN ENTRY BY: JULIA VICTOR

ISSUED DATE__________
THREE WIRE WYE SOCKET METERING
120/208V 1Ø 3W

CLASS 100 - RATING 24KVA ON BALANCED LOAD
CLASS 200 - RATING 48KVA ON BALANCED LOAD

4.02.14

FIFTH TERMINAL AND NEUTRAL SHALL
BE CONNECTED WITH #12 AWG
INSULATED COPPER WIRE BY CONTRACTOR

FIVE TERMINAL SOCKET 000000441A
(METER, VM-63-3)

LOAD TO 120/208V WYE

GRADE OR SUBSTANTIAL STANDING SURFACE

5-6' MINIMUM - 8-9' MAXIMUM
GENERAL SERVICE

120/208V 30 4-WIRE / 320 AMP OVERHEAD OR UGND SOCKET

4.02.15

M32D

NOTES:

REFER TO SECTION 6.14

TERMINALS FOR MAXIMUM 600 VOLS COPPER OR ALUMINUM CONDUCTORS.

REBAR PIPE MUST BE AN EXIT,

REQUIRED TO USE SCHEDULE 40 PVC.

A GROUNDED ROD (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR
THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR
RUNNING FROM THE GROUNDED ROD TO THE GROUNDING LUG
PROVIDE IN THE METER SOCKET.

CONTRACTOR MUST USE THE

KNOCKOUTS DESCRIBED BELOW
DO NOT USE ANY OTHER KNOCKOUT
OR DRILL ANY OTHER HOLES IN THE
METER SOCKET. KNOCKOUT
LOCATIONS ON DRAWING ARE
APPROXIMATE AND NOT DRAWN
TO SCALE.

KNOCKOUT LOCATION

3 1/2" KNOCKOUTS FOR LOAD CONDUCTORS

3 1/2" KNOCKOUTS FOR LOAD CONDUCTORS

4 1/2" KNOCKOUTS FOR LOAD CONDUCTORS

KNOCKOUTS FOR CONTRACTORS
EQUIPMENT GROUNDING CONDUCTORS

LEFT VIEW
FRONT VIEW
FRONT VIEW COVER OFF

Revised 09-19-05 By JML
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE__________
NOTE:

FOR CLEARANCE, SEE SECTION 7.01

IDENTIFY METER WITH SPACE OR APARTMENT NUMBER

SCHEDULE 80 PVC EMT OR RIGID CONDUIT WILL BE ALLOWED OUTSIDE ON ANY COMMERCIAL OR MULTI-POSITION RESIDENTIAL METER PROJECTS
TWO TO SIX SEPARATE METERS WITH SERVICE DISCONNECTS FED BY SHORT LENGTH OF SERVICE-ENTRANCE CONDUCTORS THAT TAP LATERAL CONDUCTORS IN GUTTER

NOTE:
IDENTIFY METER WITH SPACE OR APARTMENT NUMBER

EMT, SCHEDULE 80 PVC, OR RIGID CONDUIT WILL BE ALLOWED OUTSIDE ON ANY COMMERCIAL OR MULTI-POSITION RESIDENTIAL METER PROJECTS
UNDERGROUND SERVICE
GENERAL SERVICE ACCOUNTS

CUSTOMER OWNED AND INSTALLED
SERVICE LATERALS CONNECTED
TOGETHER AT COMMON SUPPLY
POINT BUT NOT AT LOAD END

TWO TO SIX SEPARATE METERS
WITH SERVICE DISCONNECTS
SUPPLYING SEPARATE LOADS
GROUPED AT ONE LOCATION

PADMOUNT
TRANSFORMER
OR PEDESTAL

INDIVIDUAL METERS

NOTE:
IDENTIFY METER WITH SPACE OR APARTMENT NUMBER

BMT, SCHEDULE 80 PVC OR BRASS CONDUIT WILL BE
ALLOWED OUTSIDE ON ANY COMMERCIAL OR MULTI-
POSITION RESIDENTIAL METER PROJECTS

UNDERGROUND SETS OF CONDUCTORS - EACH
ONE A SEPARATE CIRCUIT OF CONDUCTORS NOT
SMALLER THAN SIZE 16.

Revised 07-03-00  By  BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE_________
SINGLE PHASE SOCKET METERING
120/240V 10 3W
OVER 400 AMPERES
FOR USE WITH INSTRUMENT TRANSFORMERS

NOTES:
CUSTOMER TO FURNISH AND INSTALL "NATIONAL
ELECTRICAL CODE" GRADE STEEL CABINET OF
ADEQUATE SIZE FOR THE INSTRUMENT TRANSFORMERS
AND ALL WIRING CONNECTIONS.

SERVICE ENTRANCE NEUTRAL MANT BE BONDED TO
CURRENT TRANSFORMER CABINET.

CUSTOMER TO FURNISH AND INSTALL 1" CONDUIT FROM
INSTRUMENT TRANSFORMER CABINET TO METER SOCKET.

FOR LUG CONNECTIONS ON CURRENT TRANSFORMERS UP
TO 600 AMPERES MINIMUM BOLT SIZE 3/8" OVER
600 AMPERES MINIMUM BOLT SIZE 1/2".

REFER TO Dwg:
RESIDENTIAL & GENERAL SERVICE OVERHEAD: 6.30
RESIDENTIAL UNDERGROUND: 7.07
GENERAL SERVICE UNDERGROUND: 8.04

Revised 06-29-01  By BED
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE________
NOT FOR NEW CONSTRUCTION

SIX WIRE TOTALIZED METERING
FOR USE WITH CURRENT TRANSFORMERS

4.06.4
MAY06AL

POWER TRANSFORMER (3)

POLARITY MARK (TYPICAL)

CURRENT TRANSFORMER

LOAD 30
340V DELTA

METER
VM-64-A
340 VOLT

COLOR CODE NUMBER 13-7 STRAND
WIRE STRANDED AND INSTALLED BY O.P.B.

GROUND STUD

3 WIRE CURRENT TRANSFORMER
(MUST HAVE SAME RATIO AS POWER CURRENT TRANSFORMERS)

SOURCE 120/240V

LOAD 10
120/240V DELTA

1" METER BOARD
BY CUSTOMER
14" X 22" OR LARGER

CABINET
MD-6199

TEST SWITCH, MD-575

NOTES:

CUSTOMER TO FURNISH AND INSTALL "NATIONAL ELECTRICAL CODE" GRADE STEEL CABINET
OF ADEQUATE SIZE FOR THE CURRENT TRANSFORMERS
AND ALL WIRING CONNECTIONS

SERVICE ENTRANCE NEUTRAL MUST BE BONDER TO CURRENT TRANSFORMER CABINET

CUSTOMER TO FURNISH AND INSTALL 1 1/4" CONDUIT FROM CURRENT TRANSFORMER CABINET TO METER CABINET

FOR LUX CONNECTIONS ON CURRENT TRANSFORMERS UP
TO 600 AMPERES MINIMUM BOLT SIZE 3/8" OVER
500 AMPERES MINIMUM BOLT SIZE 1/2"

Revised 07-03-00 By BED
DESIGN ENTRY BY: BRANT DANDEL

ISSUED DATE_______
SIX WIRE TOTALIZED METERING

CLASS 45 - RATING 11KVA 16 AND 19KVA 36 - ON BALANCED LOAD
CLASS 125 - RATING 30KVA 16 AND 52KVA 38 - ON BALANCED LOAD

4.06.6

M990

NOT AVAILABLE FOR NEW SERVICE

1" METER BOARD BY CUSTOMER, 14" X 40" OR LARGER

CABINET MD-1263

TEST BLOCKS:
MD-2661 FOR NUMBER 6 TO NUMBER 2 WIRE
MD-727 FOR NUMBER 2 TO NUMBER #10 WIRE
MD-730 FOR NUMBER #30 TO NUMBER #40 WIRE

FLOOR

Revised 06-29-01 By BED
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE_________
TABLE

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>CABINET DIMENSION A</th>
</tr>
</thead>
<tbody>
<tr>
<td>240V</td>
<td>MD-1190</td>
</tr>
<tr>
<td>480V</td>
<td>MD-1190-1</td>
</tr>
<tr>
<td>5400V</td>
<td>MD-1190-2</td>
</tr>
<tr>
<td>13,800V</td>
<td>MD-1190-3</td>
</tr>
</tbody>
</table>

NOTES:

CUSTOMER TO FURNISH AND INSTALL "NATIONAL ELECTRICAL CODE" GRADE STEEL CABINET OF ADEQUATE SIZE FOR THE INSTRUMENT TRANSFORMERS AND ALL WIRING CONNECTIONS.

CUSTOMER TO FURNISH AND INSTALL 1" CONDUIT FROM INSTRUMENT TRANSFORMER CABINET TO METER CABINET.

FOR LUG CONNECTIONS ON INSTRUMENT TRANSFORMERS UP TO 400 AMPERES MINIMUM BOLT SIZE 3/8" OVER 400 AMPERES MINIMUM BOLT SIZE 1/2"
3Ø THREE WIRE DELTA METERING

240V 3W DELTA
480V 3W DELTA - FOR MAINTENANCE ONLY

POWER Transformer

COLOR CODED NUMBER 12-7 STRAND WIRES FURNISHED & INSTALLED BY OPPD

POTENTIAL TRANSFORMERS WITH 4:1 RATIO SEC CONNECTIONS BY OPPD, PRI CONNECTIONS BY CONTRACTOR

POLARITY MARK (TYPICAL)

CURRENT TRANSFORMERS RATED FOR LOAD CURRENT

LOAD 3Ø 480V DELTA

TRANSFORMER GROUND ROD

GROUND STUD

BLACK-WHITE
ORANGE-BLACK
GREEN-WHITE
GREEN
BLACK
WHITE

7 POLE TEST SWITCH MD-502

8-TERMINAL METER SOCKET 6624 (BY OPPD)

REFER TO DWG: 8.06
FOUR WIRE DELTA METERING

FOR USE WITH CURRENT TRANSFORMERS

FOUR WIRE DELTA COMPARTMENT
BANK TRANSFORMERS
120/240V FROM 1 AND 2
240V 3R FROM 1, 2 AND 3

CURRENT TRANSFORMERS
TO BE SAME RATIO

WHITE OR BLACK

BLACK-WHITE
RED-WHITE
GREEN-WHITE
ORANGE-BLACK
BLACK-ORANGE

POWER MARK
(SHALL)

GROUND STUD

COLOR CODED NUMBER 12-7 STRANDED WIRE FURNISHED AND INSTALLED BY C.P.P.D.

NOT FOR NEW CONSTRUCTION

LOAD
120/240V

LOAD
3R
240V DELTA

CUSTOMER TO FURNISH AND INSTALL "NATIONAL ELECTRICAL CODE" STEEL CABINET OF ADEQUATE SIZE FOR THE CURRENT TRANSFORMER AND ALL WIRING CONNECTIONS

SERVICE ENTRANCE NEUTRAL MUST BE BONDED TO CURRENT TRANSFORMER CABINET

CUSTOMER TO FURNISH AND INSTALL 1" CONDUIT FROM CURRENT TRANSFORMER CABINET TO METER TEST CABINET

FOR LUG CONNECTIONS AN CURRENT TRANSFORMERS UP TO 600 AMPERES MINIMUM BOLT SIZE 3/8" OVER 600 AMPERES MINIMUM BOLT SIZE 1/2"

1" METER BOARD
BY CUSTOMER,
14" X 20" OR
LABOR

CABINET
MD-2750

TEST SWITCH,
MD-221

FLOOR

REVISED 06-26-08 BY JML

DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE
30 FOUR WIRE WYE METERING
KW - FOR USE WITH INSTRUMENT TRANSFORMERS

4.06.14

TABLE

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>CABINET</th>
<th>DIMENSION A</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/240V</td>
<td>MD-1190</td>
<td>16&quot;</td>
</tr>
<tr>
<td>277/480V</td>
<td>MD-1190-B</td>
<td>17&quot;</td>
</tr>
<tr>
<td>240/416V</td>
<td>MD-1190-B</td>
<td>17&quot;</td>
</tr>
<tr>
<td>796/1200V</td>
<td>MD-1190-B</td>
<td>17&quot;</td>
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</tbody>
</table>

NOTES:

- CUSTOMER TO FURNISH AND INSTALL "NATIONAL ELECTRICAL CODE" GRADE STEEL CABINET OF ADEQUATE SIZE FOR THE INSTRUMENT TRANSFORMERS AND ALL WIRING CONNECTIONS.
- SERVICE ENTRANCE NEUTRAL MUST BE BONDED TO INSTRUMENT TRANSFORMER CABINET.
- CUSTOMER TO FURNISH AND INSTALL 1 1/2" CONDUIT FROM INSTRUMENT TRANSFORMER CABINET TO METER TEST CABINET.
- PHASE ROTATION ON POTENTIAL AT THE METER MUST BE 1-2-3 BY TEST.
- FOR LINE CONNECTIONS AN CURRENT TRANSFORMERS UP TO 600 AMPERES MINIMUM BOLT SIZE 3/4" OVER 600 AMPERES MINIMUM BOLT SIZE 1/2".

1" METER BOARD BY CUSTOMER 16" X 22" OR LARGER

CABINET SIDE TABLES

TEST SWITCH, MD-221

FLOOR

Revised 07-03-00 By BED
DESIGN ENTRY BY: BRANT DANGE

ISSUED DATE_________
3Ø FOUR WIRE WYE METERING
KW AND KVA

COLOR CODED: NUMBER 12-7 STRAND WIRE FURNISHED AND INSTALLED BY OPPD.

POTENTIAL TRANSFORMER WITH 2:4:1 RATIO CONNECTIONS BY OPPD WHEN REQUIRED.

4-WIRE WYE SOURCE

POLARITY MARK (TYPICAL)
CURRENT TRANSFORMER RATED FOR LOAD CURRENT
LOAD 4 WIRE WYE 120/208V 277/480V

TRANSFORMER GROUNDED ROD

RED-BLACK GREEN-WHITE ORANGE-BLACK
BLACK-WHITE RED-WHITE GREEN-BLACK
WHITE GREEN BLACK

TEST SWITCH MD-621
AUTO TRANSFORMER MG-64

86431 97832

REFER TO DRAWING 8.06

REVISED 06-29-01 BY BED
ISSUED DATE________

DESIGN ENTRY BY: BRANT DANGEL
FOUR WIRE DELTA METERING
FOR USE WITH CURRENT TRANSFORMERS

4.06.19
REV ONLY: MAND

FOUR WIRE DELTA COMBINER
BANK TRANSFORMERS
120/240V FROM 1 AND 2
240V 3PH FROM 1, 2 AND 3

CROSS CONNECTED CTs
MUST BE TWICE THE
RATIO OF THE SINGLE
CT

SINGLE CT MUST BE
ON THE HIGH LEG

LOAD
SINGLE PHASE
120/240V

LOAD
3PH
240V DELTA

NOTES:
CUSTOMER TO FURNISH AND INSTALL "NATIONAL
ELECTRICAL CODE" GRADE STEEL CABINET OF
Adequate size for the current transformers
and all wiring connections

SERVICE ENTRANCE NEUTRAL MUST BE BONDED TO
CURRENT Transformer CABINET
CUSTOMER TO FURNISH AND INSTALL 1" CONDUIT
FROM CT CABINET TO METER TEST CABINET

FOR LUG CONNECTIONS ON CURRENT TRANSFORMERS
UP TO 600 AMPERES MINIMUM BOLT SIZE 3/8"
OVER 600 AMPERES MINIMUM BOLT SIZE 1/2"

Revised By
DESIGN ENTRY BY: JOE LEE

ISSUED DATE 06-26-08
OVERHEAD TEMPORARY SERVICE POLE
FOR USE DURING CONSTRUCTION

5.07.1
N300
N200

1. SERVICE ENTRANCE HEAD TO BE 3' ABOVE ELAVATION OF WIREHOLDER

2. EXTEND SERVICE ENTRANCE CONDUCTORS MINIMUM 1'-6"

3. MINIMUM 3/4" CONDUIT WITH THREE NUMBER 8 MINIMUM COPPER WIRE TO METER SOCKET.

4. FIVE TERMINAL METER SOCKET AND METER FURNISHED BY OPPD CONSIDER METER SOCKET PER DETAIL "A".

5. 6" X 6" SQUARE TREATED WOOD POLE MAY ALSO BE USED.

6. WIREHOLDER

7. 3 MILLIAMPER COPPER WIRE MINIMUM WITH 30 AMPERES POWER OUTLET IN WEATHERPROOF ENCLOSURE. ALL LOAD MUST BE FUSED.

8. CONTINUOUS COPPER GROUND WIRE TO BE NOT LESS THAN A NUMBER 6, FASTEN SECURELY TO POLE WITH STAPLES

9. GROUND ROD PER CURRENT "NATIONAL ELECTRICAL CODE" EXTEND ABOVE GRADE LINE

NOTES:

CUSTOMER'S SERVICE POLE TO BE SET WITHIN 75 FEET OF EXISTING OPPD SECONDARY POLE BUT NOT UNDER OTHER LINES. POINT OF ATTACHMENT TO FACE TOWARD THE SECONDARY POLE.

CUSTOMER TO FURNISH ALL MATERIAL, EXCEPT WHERE NOTED.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE"
OVERHEAD TEMP. POLE SOCKET

120/208V 18 3W OR 120/240V 18 3W

5.07.2

NOTE: DISCONNECT MUST BE CONNECTED TO GROUNDING CONDUCTOR & GROUNDED EOD AT METER LOCATION

SOURCE

LOAD

USE #10 INSULATED WHITE WIRE TO GROUND 3RD LUG TO CENTRAL GROUND LUG

SOCKET LUGS CAN ACCEPT UP TO #8 WIRE

LVER BY-PASS NOT REQUIRED FOR TEMP SOCKETS
UNDERGROUND TEMPORARY SERVICE POST
FOR USE DURING CONSTRUCTION

M55
M5501
M5502

MINIMUM SOLID WOOD
4" X 4" SUPPORT

LOAD

FIVE TERMINAL SOCKET

GROUND STUD

DETAIL A

SERVICE CONDUCTORS AND
CONDUIT TO METER SOCKET

STAKE LINE

STAKE LINE

NOTE:

UNDERGROUND TEMPORARY SERVICE POLE
SHALL BE SET AT LEAST 3 FEET BUT NOT
OVER 6 FEET FROM THE DISTRICT'S
SECONDARY MEDICAL, BUT NOT OVER THE
DISTRICT'S CABLE.

CUSTOMER TO FURNISH ALL MATERIAL,
EXCEPT WHERE NOTED.

ALL MATERIAL FURNISHED BY THE
CUSTOMER SHALL EQUAL OR EXCEED
THE STANDARDS AS SPECIFIED IN
THE "NATIONAL ELECTRICAL CODE."

LIVE WIRE-POLE NOT REQUIRED FOR TEMP SOCKETS.

Revised 07-03-00  By BED
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE_________
RESIDENTIAL OVERHEAD SERVICE
EXTERIOR SERVICE MAST

6.08.1

APPROVED WIRE HOLDER
WEAVER W-39
JOELYN J-5568
CHANCE P-1228
OLIVER 2559
HUMMEL 67340
OR EQUIVALENT

GALVANIZED RIGID CONDUIT TO BE SECURELY FASTENED TO WALL. NO COUPLING In TOP 10 FEET OF CONDUIT.

4 ft. ABOVE FINISHED GRADE, SIDEWALKS OR FROM ANY PLATFORM OR PROJECTION FROM WHICH THE CONDUCTOR MAY BE REACHED...10.5 FT

OVER RESIDENTIAL DRIVEWAY...15 FT

OVER ROADS, STREETS, AND OTHER AREAS SUBJECT TO TRUCK TRAFFIC...18.5 FT

Revised 05-31-07. By CCN
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE_____
SURFACE TYPE METER SOCKET
120/240 VOLT 3 WIRE OVERHEAD/UNDERGROUND SERVICE ONLY
200 AMPERES PER POSITION

FRONT VIEW
COWEL REMOVED

3 KNOCKOUTS IN BACK
FOR 1 1/4" TO 3 1/2" CONDUIT

KNOCKOUTS FOR 2" TO 3" CONDUIT (3)
KNOCKOUTS FOR 1 1/4" TO 2 1/2" CONDUIT (3)
KNOCKOUTS BOTH SIDES
FOR 1 1/4" TO 2 1/2" CONDUIT

BOTTOM VIEW

5/8" KNOCKOUT FOR
EQUIPMENT GROUND (3)

NOTES:

SOURCE TERMINALS FOR MAXIMUM 600 KCMIL CONDUCTORS, LOAD TERMINALS FOR MAXIMUM 300 KCMIL CONDUCTORS.

METER SOCKET ALSO AVAILABLE WITH FIFTH TERMINAL
FOR THREE WIRE SERVICE.

Revised 10-15-08 By SAH
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE________
RESIDENTIAL OVERHEAD SERVICE
SERVICE RISER CONDUIT ON EXTERIOR WALL

6.09
MY18

Approved wire holder
Weaver W-33
Jolynn J-0598
Chance P-4225
Oliver 2529
Hubbard 67569 or equivalent

Conduit to be securely fastened to wall no coupling in top 10 feet of conduit.

Above finished grade, sidewalks or from any platform or projection from which the conductor may be reached...10.5 ft

Over residential driveway...15 ft

Over roads, streets, and other areas subject to truck traffic...15 ft

Revised 05-31-07  By MCH
Design entry by: Brant Dangel

Issued Date___
CUSTOMER-INSTALLED CONDUIT UNDER RETAINING WALL

7.02.1

**Diagram**

- Minimum to top of duct, see table
- Install 2 x 4 at end of duct
- Minimum radius, see table
- Duct size, see table
- Minimum 3" clearance
- Duct to extend minimum of 24" beyond wall
- Minimum to top of duct, see table
- Minimum cover over duct

**Table**

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Minimum Cover Over Duct</th>
<th>Minimum Radius of All Bends</th>
<th>Duct Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>600V or Less</td>
<td>24 INCHES</td>
<td>24 INCHES</td>
<td>2 1/2 INCHES</td>
</tr>
<tr>
<td>200A House Service</td>
<td>24 INCHES</td>
<td>24 INCHES</td>
<td>3 INCHES</td>
</tr>
<tr>
<td>320A House Service</td>
<td>24 INCHES</td>
<td>24 INCHES</td>
<td>3 INCHES</td>
</tr>
<tr>
<td>OVER 600V</td>
<td>42 INCHES</td>
<td>36 INCHES</td>
<td>4 INCHES</td>
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</tbody>
</table>

**Annotations**

Revised 07-03-00  By BED
Design Entry by: BRANT DANGEL

**Issued Date**
**TABLE**

<table>
<thead>
<tr>
<th>SERVICE SIZE</th>
<th>MINIMUM COVER OVER DUCT</th>
<th>MINIMUM RADIUS OF ALL BENDS</th>
<th>MINIMUM DUCT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>200A HOUSE SERVICE</td>
<td>30 INCHES</td>
<td>24 INCHES</td>
<td>2 1/2 INCHES</td>
</tr>
<tr>
<td>320A HOUSE SERVICE</td>
<td>30 INCHES</td>
<td>24 INCHES</td>
<td>3 INCHES</td>
</tr>
</tbody>
</table>
UNDERGROUND RESIDENTIAL SOCKET
ON A CANTILEVER

7.04.1

NOTES:

TERMINALS FOR MAXIMUM 500 KCMIL COPPER OR ALUMINUM CONDUCTOR.

METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THREE WIRE 120/240 SERVICE.

PATH FOR SERVICE CONDUCTORS MUST BE CLEAR OF OBSTRUCTION AND AT FINAL GRADE BEFORE INSTALLATION OF SERVICE.

AFTER ENSURE EQUIPMENT IS INSTALLED CALL ACCOUNT SERVICES AT 636-4158 OR OPO'S AREA OFFICE FOR CABLE INSTALLATION.

150 FT MAXIMUM RUN.

A GROUND BOLT (NICE SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR THE METER SOCKET WITH AN EQUIMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUND BOLT TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

SOURCE AND LOAD CONDUCT CAN BE INTERCHANGED BY Prior APPROVAL ONLY. DETAILS ON CHANGES TO THIS DRAWING WILL BE GIVEN WHEN APPROVAL IS GRANTED.

BACK RISER PIPE WITH A TREATED 4" X 4" POST

HEIGHT TO BE BETWEEN A MINIMUM OF 30" AND A MAXIMUM OF 4'-6" BETWEEN THE BOTTOM OF THE SOCKET AND FINISHED GRADE

FASTEN SECURELY TO HOUSE

BURY A MINIMUM OF 18" INTO GROUND

CLUT CONDUIT, IF REQUIRED. SEE DRAWING 8.02.3

Revised 09-15-08  By SAH
DESIGN ENTRY BY: BRANT DANGEL

ISSUED DATE
UNDERGROUND RESIDENTIAL SOCKET  
UNDER A CANTILEVER  

7.04.2  

NOTES:  

TERMINALS FOR MAXIMUM 365 KCMIL  
COPPER OR ALUMINUM CONDUCTOR.  

METER SOCKET AVAILABLE  
WITH FIFTH TERMINAL FOR THREE WIRE  
120/240 SERVICE.  

PATH FOR SERVICE CONDUCTORS  
MUST BE CLEAR OF OBSTRUCTIONS  
AND AT FINAL GRADE BEFORE  
INSTALLATION OF SERVICE.  

AFTER INTEGRATION EQUIPMENT  
IS INSTALLED CALL ACCOUNT  
SERVICES AT 536-1535 OR  
OPPO'S AREA OFFICE FOR  
CABLE INSTALLATION.  

150 FT MAXIMUM RUN.  

A GROUND ROD (NEC SUPPLEMENTAL  
GROUNDED) MUST BE INSTALLED NEAR  
THE METER SOCKET WITH AN  
EQUIPMENT GROUNDING CONDUCTOR  
RUNNING FROM THE GROUND  
ROD TO THE GROUNDING LUG  
PROVIDED IN THE METER SOCKET.  

SOURCE AND LOAD CONDUCT CAN BE  
INTERCHANGED BY PRIOR APPROVAL  
ONLY. DETAIL ON CHANGES TO THIS  
DRAWING WILL BE GIVEN WHEN  
APPROVAL IS GRANTED.  

HEIGHT TO BE  
BETWEEN A MINIMUM  
OF 30" AND A MAXIMUM  
OF 3'-6" BETWEEN THE  
BOTTOM OF THE  
SOCKET AND FINISHED  
GRADE  

2'-6" CLEARANCE  
REQUIRED ABOVE  
SOCKET  

CUSH CONDUIT,  
IF REQUIRED.  
SEE DRAWING 0.02.7

Revised 09-19-05 By JML  
DESIGN ENTRY BY: BRANT DANGE
SURFACE TYPE METER SOCKET
120/240 VOLT 3 WIRE 200 AMPERE UNDERGROUND SERVICE
"RESIDENTIAL SERVICE ONLY"

7.05.1

M118, M118D
120/208V 18 3W: M218, M218D

NOTES:

TERMINALS FOR MAXIMUM 350 KCML COPPER OR ALUMINUM CONDUCTOR.

METER SOCKET AVAILABLE WITH FIFTH TERMINAL, FOR THREE WIRE 120/208 SERVICE AT 9 O'CLOCK POSITION ONLY.

PATH FOR SERVICE CONDUCTORS MUST BE CLEAR OF OBSTRUCTION AND AT FINAL GRADE BEFORE INSTALLATION OF SERVICE.

AFTER ENTRANCE EQUIPMENT IS INSTALLED CALL ACCOUNT SERVICES AT 536-4155 OR OPPD'S AREA OFFICE FOR CABLE INSTALLATION.

150 FT MAXIMUM RUN.

A GROUND ROD (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED 6" TO THE SIDE OF THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUND ROD TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

OPPD SOURCE MAY USE RIGHT OR LEFT KNOCKOUT BASED ON SITE CONDITIONS.

KNOCKOUT LOCATION

2 1/2" INSULATED BUSHING

THIS KNOCKOUT FOR OPPD USE ONLY

2 1/2" LOCK NUT

TO GROUND ROD

HOUSE

METER SOCKET (BY CUSTOMER)

36" MIN

OBSURCTION

2 1/2" EXPANSION COUPLING INSTALLED BY CUSTOMER

2 1/2" SCHEDULE #80 INSTALLED BY CUSTOMER

RISER MUST BE STRAIGHT VERTICAL RUN AND FLUSH WITH OUTSIDE WALL.

OPPD IDENTIFYING TAPE 0000006180

LEFT VIEW

FRONT VIEW

BOTTOM VIEW

RIGHT VIEW

2 1/2" MAX KNOCKOUTS FOR OPPD'S CABLE

CONTRACTOR MUST USE THE KNOCKOUTS DESCRIBED BELOW FOR THE LINE AND LOAD CONDUCTORS. DO NOT USE ANY OTHER KNOCKOUT OR DRILL ANY OTHER HOLES IN THE METER SOCKET. KNOCKOUT LOCATIONS ON DRAWING ARE APPROXIMATE AND NOT DRAWN TO SCALE. MIDDLE BOTTOM KNOCKOUT NOT TO BE USED FOR RISER FOR OPPD CABLE.

ANY PROPOSED REQUESTS TO USE OTHER KNOCKOUTS REQUIRES PRIOR APPROVAL BY OPPD.

2 1/2" MAX KNOCKOUTS FOR CONTRACTOR'S LOAD CONDUCTORS.

KNOCKOUTS FOR CONTRACTOR'S EQUIPMENT GROUNDING. INSTALL GROUND ROD 6" OFF TO SIDE OF SOCKET.

Revised 12-17-10 By JML
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE_________
SURFACE TYPE METER SOCKET
120/240 VOLT 3 WIRE 320 AMPERE UNDERGROUND SERVICE
"RESIDENTIAL SERVICE ONLY"

7.05.2

M135

NOTES:
TERMINALS FOR MAXIMUM 500 KCMIL OR PARALLEL 350 KCMIL COPPER OR ALUMINUM CONDUCTOR.

PATH FOR SERVICE CONDUCTORS MUST BE CLEAR OF OBSTRUCTIONS AND AT FINAL GRADE BEFORE INSTALLATION OF SERVICE.

AFTER ENTRANCE EQUIPMENT IS INSTALLED CALL ACCOUNT SERVICES AT 536-4155 OR OPPD'S AREA OFFICE FOR CABLE INSTALLATION.

150 FT MAXIMUM RUN.
A GROUND ROD (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUND ROD TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

SOURCE AND LOAD CONDUIT CANNOT BE INTERCHANGED.

FOR HOMES CONVERTING FROM OVERHEAD TO UNDERGROUND SERVICE CALL ESD AT AREA OFFICE PRIOR TO INSTALLATION FOR INSTRUCTIONS ON DUCT INSTALLATION AND ASSOCIATED FEES.

OPPD IDENTIFYING TAPE 0000006180

KNOCKOUT LOCATION

LEFT VIEW
FRONT VIEW
COVER OFF
RIGHT VIEW
BOTTOM VIEW

3" MAX KNOCKOUTS FOR OPPD'S CABLE

3" MAX KNOCKOUTS FOR CONTRACTOR'S LOAD CONDUCTORS.

KNOCKOUTS FOR CONTRACTOR'S EQUIPMENT GROUNDING.
1Ø SURFACE TYPE METER SOCKET
120/240 VOLT 3 WIRE UNDERGROUND /OVERHEAD SERVICE
200 AMPERES PER POSITION

2 KNOCKOUTS IN BACK AND
1 KNOCKOUT EACH END
FOR 1 1/4" TO 2 1/2" CONDUIT

SCHEDULE 80 PVC (FOR RESIDENTIAL)
OR RIGID OR 3" RIGID GALVANIZED CONDUIT
WITH NON-METALLIC BUSHING BY CUSTOMER
IN ALL NON-RESIDENTIAL APPLICATIONS

FRONT VIEW
COVER REMOVED

THIS KNOCKOUT FOR OppRD USE ONLY
FOR RESIDENTIAL APPLICATIONS

BOTTOM VIEW
1 KNOCKOUTS FOR 3" TO 3" CONDUIT
2 KNOCKOUTS FOR 1 1/4" TO 2 1/2" CONDUIT
1 KNOCKOUTS FOR 1/2" TO 1" CONDUIT
1 KNOCKOUTS FOR 1/2" CONDUIT
1 KNOCKOUT FOR 1/4" EQUIPMENT GROUND

SOURCES TERMINALS FOR MAXIMUM 600 KCMIL
CONDUCTORS, LOAD TERMINALS FOR MAXIMUM 500 KCMIL CONDUCTORS.

METER SOCKET AVAILABLE WITH FIFTH
TERMINAL, FOR THREE WIRE VFW SERVICE.

Issued Date________
CUSTOMER'S METER SUPPORT RESIDENTIAL, UNDERGROUND

7.06

M121
M131D
120/240V 10 MCM M221
M221D

NOTES:

1. TERMINALS FOR MAXIMUM 250 KCMIL COPPER OR ALUMINUM CONDUCTORS.

2. METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THREE WIRE 120/208 SERVICE.

3. PATH FOR SERVICE CONDUCTORS MUST BE CLEAR OF OBSTRUCTION AND AT FINAL GRADE BEFORE INSTALLATION OF SERVICE.

4. AFTER ENTRANCE EQUIPMENT IS INSTALLED, CALL ACCOUNT SERVICES AT 544-4135 OR OPRP'S AREA OFFICE FOR CABLE INSTALLATION.

5. 150 FT MAXIMUM RUN.

6. A GROUND ROG (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUND ROG TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

7. SOURCE AND LOAD CONDUCT CAN BE INTERCHANGED BY PRIOR APPROVAL ONLY. DETAIL ON CHANGES TO THE DRAWING WILL BE GIVEN WHEN APPROVAL IS GRANTED.

SEE DWG 7.64.1 FOR ACCEPTABLE CONVERT CONNECT LOCATIONS IN SOCKET.

Revised 05-24-07 By MCH
Design ENTRY BY: BRANT DANGEL

ISSUED DATE_________
TO PROVIDE SUFFICIENT SPACE FOR THE CUSTOMER TO INSTALL A SLIP-FIT RISER PIPE DOWN FROM THE CT CABINET TO GRADE LEVEL.

REFER TO Diagram 404.5

STEEL CABINET FOR INSTRUMENT TRANSFORMERS

Revised 07-03-00 By BED
DESIGN ENTRY BY: GRETE H SCHOLZ

ISSUED DATE__________
SURFACE TYPE METER SOCKET
120/240 VOLT 3 WIRE 200 AMPERE UNDERGROUND SERVICE
"GENERAL SERVICE ONLY"

8.04.1

NOTES:

TERMINALS FOR MAXIMUM 300 KCMIL COPPER OR ALUMINUM CONDUCTOR.

METER SOCKET AVAILABLE WITH FIFTY TERMINAL FOR THREE WIRE 120/208 SERVICE.

A GROUNDED ROAD (NEC SUPPLEMENTAL GROUND) MUST BE INSTALLED NEAR THE METER SOCKET WITH AN EQUIPMENT GROUNDING CONDUCTOR RUNNING FROM THE GROUNDED ROAD TO THE GROUNDING LUG PROVIDED IN THE METER SOCKET.

SOURCE AND LOAD CONDUCT CAN BE INTERCHANGED.

ALL GENERAL SERVICE SELF CONTAINED METER SOCKETS SHALL INCLUDE A LEVER BY-CHILD.

KNOCKOUT LOCATION

CONTRACTOR MUST USE THE KNOCKOUTS DESCRIBED BELOW FOR THE LINE AND LOAD CONDUCTORS. DO NOT DRILL ANY OTHER HOLES IN THE METER SOCKET. KNOCKOUT LOCATIONS ON DRAWINGS ARE APPROXIMATE AND NOT DRAWN TO SCALE.

REFER TO DRAW: 4.02.4

2 1/2" MAX KNOCKOUTS FOR GFD'S USE ONLY

2 1/2" MAX KNOCKOUTS

KNOCKOUTS FOR CONTRACTOR'S EQUIPMENT GROUNDING.

Revised 02-09-06 By JML
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE
10  PADMOUNT TRANSFORMER
LOW PROFILE-TYPE, 25KVA TO 167KVA

8.08.1

SECONDARY CONDUIT
MAXIMUM 5" SIZE
MAXIMUM 4 CONDUITS
MAXIMUM 4 SETS OF
SERVICE CONDUCTOR.
POSITION CONDUIT
AT REAR OF SLAB
OPENING.

PRIMARY CABLE CONDUIT(S) 4"
NON-METALLIC SCHEDULE 40
WITH 90° 36" RADIUS BEND(S),
POSITION CONDUIT AT FRONT
OF SLAB.

FINISHED GRADE
BOTTOM OF HOLES SHALL
BE EXCAVATED TO CLEAN
LEVEL SURFACE OF
UNDISTURBED MATERIAL.

INSTALL PIERS TO
UNDISTURBED EARTH.
BY CUSTOMER.

TOP ELEVATION OF
PIERS TO BE AT
FINISHED GRADE.

THE TOP ONE (1) FOOT OF SUBGRADE BENEATH
THE SLAB SHALL BE THOROUGHLY COMPACTED
TO 90% OF MAXIMUM DENSITY PER ASTM D698.

IF THE TOP THREE (3) FEET OF SUBGRADE
BENEATH THE SLAB IS SUSCEPTIBLE TO A HIGH
WATER TABLE OR PERIODIC SATURATION,
THE EXISTING SOIL SHALL BE EXCAVATED AND
BACKFILLED WITH A CLEAN SAND OR
GRavel AND THOROUGHLY COMPACTED
TO 90% OF MAXIMUM DENSITY PER ASTM
D2049 AND D1556.

NO WAllS TO BE BUILT AROUNd OR CANOpIES
ABOve TRANSFORMER. PLACE TRANSFORMER AWAY
FROM DOORS, WINDOWS, & BUILDING OPENINGS.*

CUSTOMER TO FurnISH ALL MATERIAL, EXCEPT
WHERE NOTED.

ALL MATERIAL FurnISHEd BY THE CUSTOMER
SHALL EQUAL OR EXCEED THE STANDARDS
AS SPECIFIED IN THE "NATIONAL ELECTRICAL
CODE."

ALL CUSTOMER INSTALLED PRIMARY CONDUITS
TO BE RODDED AND PROVEN CLEAR AND A
JET LINE TO BE LEFT IN EACH CONDUIT.

ALL CONDUITS ENTERING SLAB TO BE
VERTICAL AND AT A 90° ANGLE WITH TOP
OF SLAB.

COORDINATE WITH OPPD TO INSPECT SITE PRIOR TO
POURING CONCRETE. INSPECTION WILL INCLUDE LOCATION
AND DEPTH OF HOLES FOR SUPPORT PIERS (IF REQUIRED),
AND CONDUIT PLACEMENT. OPPD INSPECTION DOES NOT
INCLUDE INSPECTING FOR INSURANCE RECOMMENDED
BUILDING CLEARANCES.

* THIS DRAWING SHOWS THE MINIMUM CLEARANCE NEEDED FOR PHYSICAL
REASONS; FACTORY MUTUAL INSURANCE COMPANY RECOMMENDS THE
FOLLOWING SEPARATION DISTANCES BETWEEN THE SPECIFIED TYPE OF
BUILDING AND TRANSFORMER FOR MINERAL-OIL FILLED TRANSFORMERS WITH
UNDER 500 GALLONS OF OIL. BUILDING OWNERS AND THEIR CONTRACTORS
ARE RESPONSIBLE FOR LOCATING THE SLAB PER OPPD MINIMUM CLEARANCE
GUIDELINES AND THEIR INSURANCE COMPANY RECOMMENDATIONS.

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ISSUED DATE_______

Revised 01-15-20 By CLS
DESIGN ENTRY BY: ROBERT B ADAMS
10 PADMOUNT TRANSFORMER
SLAB DETAIL
CONVENTIONAL, 25KVA TO 167KVA

8.08.2

MINIMUM 4" IRON PROTECTION PIPES TO BE SET 3'-6" ABOVE AND 3'-6" BELOW GRADE. SET IN CONCRETE. CAP PIPE. A 6" "I" BEAM MAY BE SUBSTITUTED.

MINIMUM 4" IRON PROTECTION IS REQUIRED IN FRONT OF THE TRANSFORMER.

AREA WITHIN PROTECTION PIPES MUST REMAIN CLEAR FOR OPENING OF TRANSFORMER DOORS AND MAINTENANCE. A TOTAL OF 10' OF CLEARANCE IS REQUIRED IN FRONT OF THE TRANSFORMER.

THE TOP ONE (1) FOOT OF SUBGRADE BENEATH THE SLAB SHALL BE THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D698.

IF THE TOP THREE (3) FEET OF SUBGRADE BENEATH THE SLAB IS SUSCEPTIBLE TO A HIGH WATER TABLE OR PERIODIC SATURATION, THE EXISTING SOIL SHALL BE EXCAVATED AND BACKFILLED WITH A CLEAN SAND OR GRAVEL AND THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D2049 AND D1556.

TOP OF SLAB MUST BE SMOOTH, FLAT AND LEVEL.

NO WALLS TO BE BUILT AROUND OR CANOPIES ABOVE TRANSFORMER. PLACE TRANSFORMER AWAY FROM DOORS, WINDOWS, & BUILDING OPENINGS.*

CUSTOMER TO FURNISH ALL MATERIAL, EXCEPT WHERE NOTED.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE."

ALL CUSTOMER INSTALLED PRIMARY CONDUITS TO BE RODDED AND PROVEN CLEAR AND A JET LINE TO BE LEFT IN EACH CONDUIT.

COORDINATE WITH OPPD TO INSPECT SITE PRIOR TO POURING CONCRETE. INSPECTION WILL INCLUDE LOCATION AND DEPTH OF HOLES FOR SUPPORT PIERS (IF REQUIRED), AND CONDUIT PLACEMENT. OPPD INSPECTION DOES NOT INCLUDE INSPECTING FOR INSURANCE RECOMMENDED BUILDING CLEARANCES.

* THIS DRAWING SHOWS THE MINIMUM CLEARANCE NEEDED FOR PHYSICAL REASONS; FACTORY MUTUAL INSURANCE COMPANY RECOMMENDS THE FOLLOWING SEPARATION DISTANCES BETWEEN THE SPECIFIED TYPE OF BUILDING AND TRANSFORMER FOR MINERAL-OIL FILLED TRANSFORMERS WITH UNDER 500 GALLONS OF OIL. BUILDING OWNERS AND THEIR CONTRACTORS ARE RESPONSIBLE FOR LOCATING THE SLAB PER OPPD MINIMUM CLEARANCE GUIDELINES AND THEIR INSURANCE COMPANY RECOMMENDATIONS.

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Revised 01-15-20 By CLS
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE
10 PADMOUNT TRANSFORMER SLAB DETAIL
CONVENTIONAL, 250KVA AND 333KVA
MAX. WEIGHT 3000 POUNDS

EDGE OF BUILDING

4'-0" MINIMUM

8-#4 X 2'-0" REBARS

1'-6"

6 1/2"

5'-8"

2'-2"

5'-8"

EDGE OF BUILDING

4'-0" TYPICAL

6'-0" MINIMUM

TOP OF SLAB

VERTICAL AND AT A 90° ANGLE WITH ALL CONDUITS ENTERING SLAB TO BE CLEAR, AND A JET LINE TO BE LEFT IN EACH CONDUIT.

SECONDARY DUCTS 5 1/2" ON CENTER MAXIMUM 5" DUCT MAXIMUM 4 DUCTS MAXIMUM 4 SETS OF SERVICE CONDUCTORS POSITION AT RIGHT OR OPENING.

MINIMUM 4" IRON PROTECTION PIPES TO BE SET 3'-6" ABOVE AND 3'-6" BELOW GRADE. SET IN CONCRETE. CAP PIPE. A 6" "I" BEAM MAY BE SUBSTITUTED.

AREA WITHIN PROTECTION PIPES MUST REMAIN CLEAR FOR OPENING OF TRANSFORMER DOORS AND MAINTENANCE. A TOTAL OF 10' OF CLEARANCE IS REQUIRED IN FRONT OF THE TRANSFORMER.

MINIMUM 4" IRON PROTECTION PIPES TO BE SET 3'-6" ABOVE AND 3'-6" BELOW GRADE. SET IN CONCRETE. CAP PIPE. A 6" "I" BEAM MAY BE SUBSTITUTED.

COORDINATE WITH OPPD TO INSPECT SITE PRIOR TO POURING CONCRETE. INSPECTION WILL INCLUDE LOCATION AND DEPTH OF HOLES FOR SUPPORT PIERS, AND CONDUIT PLACEMENT. OPPD INSPECTION DOES NOT INCLUDE INSPECTING FOR INSURANCE RECOMMENDED BUILDING CLEARANCES.

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ORGANIC AND/OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM SUBGRADE AND BACKFILLED WITH ACCEPTABLE GRANULAR FILL, COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT ASTM D1557 AND D2049. IF THE TOP THREE (3) FEET OF SUBGRADE BENEATH THE SLAB IS SUSCEPTIBLE TO A HIGH WATER TABLE OR PERIODIC SATURATION, THE EXISTING SOIL SHALL BE EXCAVATED AND BACKFILLED WITH A CLEAN ACCEPTABLE GRANULAR FILL AND THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D2049 AND D1556.

SLAB TO BE MADE OF CONCRETE WITH A MINIMUM 28 DAY STRENGTH OF 4,000 PSI AND 6% AIR CONTENT.

TOP OF SLAB MUST BE SMOOTH, FLAT AND LEVEL.

NO WALLS TO BE BUILT AROUND OR CANOPIES ABOVE TRANSFORMER. PLACE TRANSFORMER AWAY FROM DOORS, WINDOWS, & BUILDING OPENINGS.*

CUSTOMER TO FURNISH ALL MATERIAL, EXCEPT WHERE NOTED.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE"

ALL CUSTOMER INSTALLED PRIMARY CONDUITS TO BE RODDED AND PROVEN CLEAR, AND A JET LINE TO BE LEFT IN EACH CONDUIT.

ALL CONDUITS ENTERING SLAB TO BE VERTICAL AND AT A 90° ANGLE WITH TOP OF SLAB.

8.08.3

ISSUED DATE

Revised 01-15-20 By CLS
DESIGN ENTRY BY: ROBERT B ADAMS
SLAB DETAIL

75 KVA TO 500 KVA
7000 POUNDS

EDGE OF BUILDING

3Ø PADMOUNT TRANSFORMER

4'-0" MINIMUM*
3" TYPICAL
1'-6"

"I" BEAM MAY BE SUBSTITUTED.
IN CONCRETE.
CAP PIPE.
A 6" AND 3'-6" BELOW GRADE.
SET PIPES TO BE SET 3'-6" ABOVE
MINIMUM 4" IRON PROTECTION

4'-9"
6 1/2"

2'-3"

8"
6'-0"

2

1'-0" MAX
3'-2" MAX
1'-7"
1'-9"

3" TYPICAL
6'-0" MINIMUM

5'-0" MIN
3'-6"

UNDISTURBED EARTH

MINIMUM 4" IRON PROTECTION
PIPED TO BE SET 3'-6" ABOVE
AND 3'-6" BELOW GRADE.
SET IN CONCRETE.
CAP PIPE.
A 6"
"I" BEAM MAY BE SUBSTITUTED.

MIN. 6 #4
1'-0" DIA.

SECONDARY DUCTS
5 1/2" ON CENTER
MAXIMUM 5" DUCT
MAXIMUM 6 DUCTS
MAXIMUM 6 CONDUCTORS PER PHASE
POSITION CONDUIT AT RIGHT OF OPENING

MINIMUM 5" IRON PROTECTION
PIPED TO BE SET 3'-6" ABOVE
AND 3'-6" BELOW GRADE.
SET IN CONCRETE.
CAP PIPE.
A 6" "I" BEAM MAY BE SUBSTITUTED.

ORGANIC AND/OR OTHER UNSUITABLE MATERIAL
SHALL BE REMOVED FROM SUBGRADE AND
BACKFILL AREAS AND BACKFILLED WITH
ACCEPTABLE GRANULAR FILL, COMPACTED TO
95% OF MAXIMUM DENSITY AT OPTIMUM
MOISTURE BEND(S), ASTM D1557 AND D2049.
IF THE TOP THREE (3) FEET OF SUBGRADE
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COORDINATE WITH OPPD TO INSPECT SITE PRIOR TO
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ALL CONDUITS ENTERING SLAB TO BE
VERTICAL AND AT A 90° ANGLE WITH
TOP OF SLAB

TRANSMITTED:

REVIEWED:

DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE

REVISED D2049 AND D1556.
TO 90% OF MAXIMUM DENSITY PER ASTM
OF 4,000 PSI AND 6% AIR CONTENT
TOP OF SLAB MUST BE SMOOTH,
FLAT AND LEVEL,
NO WALLS TO BE BUILT AROUND OR
CANOPIES ABOVE TRANSFORMER. PLACE
TRANSFORMER AWAY FROM DOORS,
WINDOWS, & BUILDING OPENINGS.*
CUSTOMER TO FURNISH ALL MATERIAL,
EXCEPT WHERE NOTED

2- EACH CORNER
45

14-#4 X 6'-0" REBAR

TOP OF SLAB MUST BE SMOOTH,
FLAT AND LEVEL,
NO WALLS TO BE BUILT AROUND OR
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229x145] TO FURNISH ALL MATERIAL,
CUSTOMER TO FURNISH ALL MATERIAL,
EACH CONDUIT
5" SEPARATION, FOR
PRIMARY CABLE, REFER
TO METER
SPECIFICATIONS FOR
QUANTITY REQUIRED

8-#4" x 2' REBARS
2- EACH CORNER
45

58" X 8" GROUND ROD FURNISHED AND
INSTALLED BY OPPD.
SAFE ZONE FOR
GROUND ROD INSTALLATION SHALL BE
MARKED.

MINIMUM 4" IRON PROTECTION
PIPED TO BE SET 3'-6" ABOVE
AND 3'-6" BELOW GRADE. SET
IN CONCRETE.
CAP PIPE.
A 6"
"I" BEAM MAY BE SUBSTITUTED.

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ALL CONDUITS ENTERING SLAB TO BE
VERTICAL AND AT A 90° ANGLE WITH
TOP OF SLAB

TRANSMITTED:

REVIEWED:

DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE

REVISED 01-15-20 By CLS

QUANTITY REQUIRED
SPECIFICATIONS FOR
TO METER
PRIMARY CABLE, REFER
1" SEPARATION, FOR
MAXIMUM 6 DUCTS
MAXIMUM 6 CONDUCTORS PER PHASE
POSITION CONDUIT AT
RIGHT OF OPENING

MINIMUM 4" IRON PROTECTION
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AND CONDUIT PLACEMENT. OPPD INSPECTION DOES NOT
INCLUDE INSPECTING FOR INSURANCE RECOMMENDED
BUILDING CLEARANCES.
3Ø Padmount Transformer Slab Detail
500 KVA TO 1000 KVA
9000 Pounds
Edge of Building

12" Diameter Peir (Typ)
3" Cover (Typ)

One layer W20 6" x 6" Steel mesh. Cut hole for opening:
1-4" non-metallic conduit with 90° 36" radius bend for primary cables.
8-#4 x 2' rebar, 2 each corner, 45°.

50" x 8' ground rod furnished and installed by OPPD. Safe zone for ground rod installation shall be marked.

14-#4 x 7'-0" rebar.

Area within protection pipes must be clear for opening of transformer doors and maintenance. A total of 10' of clearance is required in front of the transformer.

Minimum 4" iron protection pipes to be set 3'-6" above and 3'-6" below grade, set in concrete. Cap pipe. A 6" x 4" beam may be substituted.

Organic and/or other unsuitable material shall be removed from subgrade and backfill areas and backfilled with acceptable granular fill, compacted to 95% of maximum density at optimum moisture content ASTM D1557 and D2049.

If the top three (3) feet of subgrade beneath the slab is susceptible to a high water table or periodic saturation, the existing soil shall be excavated and backfilled with a clean acceptable granular fill and thoroughly compacted to 90% of maximum density per ASTM D2049 and D1556.

* This drawing shows the minimum clearance needed for physical reasons; Factory Mutual Insurance Company recommends the following separation distances between the specified type of building and transformer for mineral-oil filled transformers with under 500 gallons of oil. Building owners and their contractors are responsible for locating the slab per OPPD minimum clearance guidelines and their insurance company recommendations.

TWO HOURS FIRE RESISTANT CONSTRUCTION

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All material furnished by the customer shall equal or exceed the standards as specified in the "National Electrical Code".

All customer installed primary conduits to be rodded and proven clear, and a jet line to be left in each conduit.

All conduits entering slab to be vertical and at a 90° angle with top of slab.

Top of slab must be smooth, flat and level.

No walls to be built around or canopies above transformer. Place transformer away from doors, windows, & building openings.*

Customer to furnish all material, except where noted.

Issued Date

Revised 01-15-20 By CLS
Design Entry by Robert B Adams
3Ø PADMOUNT TRANSFORMER SLAB DETAIL
1500, 2000 & 2500 KVA
20000 POUNDS

EDGE OF BUILDING

4'-0" MINIMUM*
FOR PRIMARY CABLES
36" RADIUS BEND
CONDUIT WITH 90
1-4" NON-METALLIC

1'-6"

5'-9"

5'-9"

2' - 2"

1" - 8"

1' - 8"

4' - 0" MINIMUM*

12" DIAMETER
PEIR (TYP)

TWO LAYER W20
6" X 6" WELD
WIRE MESH TOP & BOTTOM.

1-4" NON-METALLIC
CONDUIT WITH 90°
36" RADIUS BEND
FOR PRIMARY CABLES

8-2#4 X 2' - 6"
2 EACH CORNER

4 - 2#4 X 8'

58" X 8" GROUND
ROD FURNISHED AND
INSTALLED BY OPPD.
SAFE ZONE FOR
GROUND ROD
INSTALLATION SHALL BE MARKED.

AREA WITHIN PROTECTION PIPES
MUST BE CLEAR FOR OPENING
OF TRANSFORMER DOORS AND
MAINTENANCE. A TOTAL OF 10'
OF CLEARANCE IS REQUIRED IN
FRONT OF THE TRANSFORMER.

MINIMUM 4" IRON PROTECTION
PIPES TO BE SET 3' - 6" ABOVE
AND 3'-6" BELOW GRADE. SET
IN CONCRETE. CAP PIPE. A 6" 1/2" BEAM MAY BE SUBSTITUTED.

THE EXISTING SOIL SHALL BE EXCAVATED
AND BACKFILLED WITH A CLEAN ACCEPTABLE
GRANULAR FILL AND THOROUGHLY COMPACTED
TO 90% OF MAXIMUM DENSITY PER ASTM
D2049 AND D1556.

SLAB TO BE MADE OF CONCRETE
WITH A MINIMUM 28 DAY STRENGTH
OF 4,000 PSI AND 6% AIR CONTENT

ORGANIC AND/OR OTHER UNSUITABLE MATERIAL
SHALL BE REMOVED FROM SUBGRADE AND
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IF THE TOP THREE (3) FEET OF SUBGRADE
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ALL MATERIAL FURNISHED BY THE
CUSTOMER SHALL EQUAL OR EXCEED
THE STANDARDS AS SPECIFIED IN
THE "NATIONAL ELECTRICAL CODE"
ALL CUSTOMER INSTALLED PRIMARY
CONDUITS TO BE RODDED IN
PROVEN CLEAR, AND A JET LINE TO
BE LEFT IN EACH CONDUIT
ALL CONDUITS ENTERING SLAB TO
BE VERTICAL AND 90° ANGLE
WITH TOP OF SLAB
TOP OF SLAB MUST BE SMOOTH,
FLAT AND LEVEL.
NO WALLS TO BE BUILT AROUND OR
CANOPIES ABOVE TRANSFORMER, PLACE
TRANSFORMER AWAY FROM DOORS,
WINDOWS, & BUILDING OPENINGS.*
CUSTOMER TO FURNISH ALL MATERIAL,
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Revised 01-15-20 By CLS
DESIGN ENTRY BY: ROBERT B ADAMS
ISSUED DATE_______
CUSTOMER INSTALLED PULLBOX

MAXIMUM 10 CABLE
DO NOT INSTALL IN DRIVING SURFACE

SINGLE PHASE: 8.08.7A
THREE PHASE: 8.08.7B

REMOVABLE COVER - MAXIMUM WEIGHT 118 LBS - MUST BE REMOVABLE BY MAXHOLE BAR
2 - 2" PULLING EYES ON OPOSITIVE ENS TO WITH STAND MINIMUM 5,000 LBS TENSION
4" PVC CONDUIT

STAINLESS STEEL "FLOATING NUTS" FOR PINTHEAD BOLTS - MUST BE ABLE TO REPLACE IF THREADS ARE STRIPPED.

CUTAWAY SECTION
TOP VIEW

1/2" - 1 1/8 PINTHEAD
BOLOTS FOR COVER
HOLDOWN

FINAL GRADE

SIDE VIEW

END VIEW

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<th>DIMENSIONS</th>
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<th>EXCAVATION REQ'D (LABOR)</th>
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<td>8.08.7A</td>
<td>60&quot;</td>
<td>4 30&quot;</td>
<td>7 CU YDS</td>
<td>10</td>
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<td>8.08.7B</td>
<td>70&quot;</td>
<td>4 34&quot;</td>
<td>9 CU YDS</td>
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NOTE:
1 DESIGN LOAD - HS-20-64 (FULL TRAFFIC LOADING).
2 CDE (DIVISION OF HOMAC MFG CO).
3 PLACEMENT PER MANUFACTURER'S RECOMMENDATION.
4 PULLBOX IS FOR OPPD'S EXCLUSIVE USE. JOINT USE WITH CUSTOMER EQUIPMENT OF ANY NATURE SHALL NOT BE ALLOWED.

Revised 09-15-08 By SAH
DESIGN ENTRY BY: BRANT DANDEL

ISSUED DATE________
30 PADMOUNT TRANSFORMER

METERING EQUIPMENT ON TRANSFORMER

STD 8.08.8

NOTE:

- A minimum clear working space of 2.5 ft above, below, and necessary side working clearance, as well as 36" horizontally in front of the meters, shall be provided and maintained.

METERING ON TRANSFORMER IS FOR ONLY WITH INSTRUMENT TRANSFORMERS MOUNTED INSIDE PADMOUNTED TRANSFORMER AND METER MOUNTED ON PADMOUNT TRANSFORMER OR ON BUILDING WALL. AEC IS FOR NEW CONSTRUCTION ONLY, UNLESS EXISTING SERVICE ENTRANCE CABLES ARE REPLACED.

REFER TO DRAWING 8.08.6

REFER TO DRAWING 8.08.1 THROUGH 8.08.4 FOR SLAB DETAILS
6' X 6' PRECAST MANHOLE
CUSTOMER INSTALLATION

HS 20 - 44 LOADING
MAXIMUM CABLE SIZE #10

6' X 6' PRECAST CONCRETE MANHOLE
6' DEEP MINIMUM
EXCAVATION (768 CU FT)

NOTES:

CONTACT ENGINEER IF SOIL MOISTURE / GROUND WATER IS ENCOUNTERED AT DEPTH OF LESS THAN 3'-6" BELOW GRADE.

TOP PORTION OF MANHOLE = 2.42 TONS
BOTTOM PORTION OF MANHOLE = 5.75 TONS

DRIVE 6" X 10" GROUND ROD (5950-09981) THRU 1" HOLE IN BOTTOM OF PRECAST MANHOLE PRIOR TO THE SETTING OF THE TOP OF MANHOLE. EXTEND GROUND ROD 6" ABOVE MANHOLE FLOOR.

WATER BARrier (MAStic) PROVIDED BY MANHOLE MANUFACTURER MUST BE INSTALLED BETWEEN TOP AND BOTTOM PORTIONS.

COLLARS SHALL BE SHINNED & GROUTED ON MANHOLE ROOF TO ATTAIN REQUIRED SLOPE PER DIRECTION OF ENGINEER.

BACKFILL TO TOP OF MANHOLE WITH "FLOWABLE FILL" PER NEBRASKA DEPARTMENT OF HIGHWAYS (NDH) SPECIFICATIONS.

BACKFILL FROM TOP OF MANHOLE TO FINISH GRADE WITH COMPACTED SOIL PER CITY, COUNTY OR STATE SPECIFICATIONS, WHEREVER GOVERNS.

MANHOLE IS FOR ODD'S EXCLUSIVE USE. JOINT USE WITH CUSTOMER EQUIPMENT OF ANY NATURE SHALL NOT BE ALLOWED.

SUGGESTED TYPICAL JOINT

BILL OF MATERIAL

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>BBQ'D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GRAVEL</td>
<td>1/3 CU YD</td>
</tr>
<tr>
<td>2</td>
<td>STEEL CREATING, 2&quot; X 2&quot;</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>GROUND ROD, 6&quot; X 14&quot;</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>MANHOLE, 6&quot; X 6&quot;</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>CRUSHED LIMESTONE</td>
<td>34 CU YD</td>
</tr>
<tr>
<td>6</td>
<td>FLOWABLE BACKFILL</td>
<td>7 CU YDS</td>
</tr>
</tbody>
</table>

FLOWABLE FILL (NDH)

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMENT</td>
<td>50 LBS</td>
</tr>
<tr>
<td>FLY ASH</td>
<td>325 LBS</td>
</tr>
<tr>
<td>WATER</td>
<td>420 LBS</td>
</tr>
<tr>
<td>SAND</td>
<td>2700 LBS</td>
</tr>
<tr>
<td>ABA</td>
<td>10 OZ/CY</td>
</tr>
</tbody>
</table>

COMPRRESSIVE STRENGTH (28 DAYS) 60-775 PSI
AIR CONTENT FOR ALL MIXES WILL BE IN THE RANGE OF 10.0% TO 14.0%
TRANSFORMER AND SECONDARY CAbINET SLAB DETAIL
750 KVA & 1000 KVA TRANSFORMERS

THE SLAB SHALL BE THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D698.
IF THE TOP THREE (3) FEET OF SUBGRADE BENEATH THE SLAB IS SUSCEPTIBLE TO A HIGH WATER TABLE OR PERIODIC SATURATION, THE EXISTING SOIL SHALL BE EXCAVATED AND BACKFILLED WITH A CLEAN SAND OR GRAVEL AND THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D2049 AND D1556.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE." ALL CUSTOMER INSTALLED PRIMARY CONDUITS TO BE RODDED AND PROVEN CLEAR, AND A JET LINE TO BE LEFT IN EACH CONDUIT ALL CONDUITS ENTERING SLAB TO BE VERTICAL AND AT A 90° ANGLE WITH TOP OF SLAB.

SLAB TO BE MADE OF SG-6 CONCRETE WITH A MINIMUM 28 DAY STRENGTH OF 3000 PSI TOP OF SLAB MUST BE SMOOTH, FLAT AND LEVEL. NO WALLS TO BE BUILT AROUND OR CANOPIES ABOVE TRANSFORMER. PLACE TRANSFORMER AWAY FROM DOORS, WINDOWS, AND BUILDING OPENINGS. CUSTOMER TO FURNISH ALL MATERIAL, EXCEPT WHERE NOTED.

COORDINATE WITH OPPD TO INSPECT SITE PRIOR TO POURING CONCRETE. INSPECTION WILL INCLUDE LOCATION AND DEPTH OF HOLES FOR SUPPORT PIERS (IF REQUIRED), AND CONDUIT PLACEMENT. OPPD INSPECTION DOES NOT INCLUDE INSPECTING FOR INSURANCE RECOMMENDED BUILDING CLEARANCES.

* THIS DRAWING SHOWS THE MINIMUM CLEARANCE NEEDED FOR PHYSICAL REASONS; FACTORY MUTUAL INSURANCE COMPANY RECOMMENDS THE FOLLOWING SEPARATION DISTANCES BETWEEN THE SPECIFIED TYPE OF BUILDING AND TRANSFORMER FOR MINERAL-OIL FILLED TRANSFORMERS WITH UNDER 500 GALLONS OF OIL. BUILDING OWNERS AND THEIR CONTRACTORS ARE RESPONSIBLE FOR LOCATING THE SLAB PER OPPD MINIMUM CLEARANCE GUIDELINES AND THEIR INSURANCE COMPANY RECOMMENDATIONS.

<table>
<thead>
<tr>
<th>TWO HOURS FIRE RESISTANT CONSTRUCTION</th>
<th>NON-COMBUSTIBLE CONSTRUCTION</th>
<th>COMBUSTIBLE CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5'</td>
<td>15'</td>
<td>25'</td>
</tr>
</tbody>
</table>
ORGANIC AND/OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM SUBGRADE AND BACKFILL AREAS AND BACKFILLED WITH ACCEPTABLE GRANULAR FILL, COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT ASTM D1557 AND D2049.

IF THE TOP THREE (3) FEET OF SUBGRADE BENEATH THE SLAB IS SUSCEPTIBLE TO A HIGH WATER TABLE OR PERIODIC SATURATION, THE EXISTING SOIL SHALL BE EXCAVATED AND BACKFILLED WITH A CLEAN ACCEPTABLE GRANULAR FILL AND THOROUGHLY COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D2049 AND D1556.

SLAB TO BE MADE OF CONCRETE WITH A MINIMUM 28 DAY STRENGTH OF 4,000 PSI AND 6% AIR CONTENT.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL EQUAL OR EXCEED THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE" ALL CUSTOMER INSTALLED PRIMARY CONDUITS TO BE ROODED IN PROVEN CLEAR, AND A JET LINE TO BE LEFT IN EACH CONDUIT.

ALL CONDUITS ENTERING SLAB TO BE VERTICAL AND 90° ANGLE WITH TOP OF SLAB.

TOP OF SLAB MUST BE SMOOTH, FLAT AND LEVEL.
NO WALLS TO BE BUILT AROUND OR CANOPIES ABOVE TRANSFORMER. PLACE TRANSFORMER AWAY FROM DOORS, WINDOWS, & BUILDING OPENINGS.
CUSTOMER TO FURNISH ALL MATERIAL EXCEPT WHERE NOTED.

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<td>15'</td>
<td>25'</td>
</tr>
</tbody>
</table>

THE EXISTING SOIL SHALL BE EXCAVATED AND BACKFILLED WITH A CLEAN ACCEPTABLE GRANULAR FILL, COMPACTED TO 90% OF MAXIMUM DENSITY PER ASTM D2049 AND D1556.

SLAB TO BE MADE OF CONCRETE WITH A MINIMUM 28 DAY STRENGTH OF 4,000 PSI AND 6% AIR CONTENT.
MOBILE HOME PARK UNDERGROUND SERVICE
120/240V SINGLE PHASE
(SINGLE)
200 AMPERE MAX SERVICE

CUSTOMER'S DISCONNECT AND
OVERCURRENT DEVICE,
SEE NEC-550.
ADDRESS, LOT NUMBER,
& PERMANENT IDENTIFICATION
POSTED ON OUTSIDE OF
EACH CABINET, BY CUST.

GROUND LINE
FINAL GRADE

FURNISHED BY OPPD

22 1/2"

CUSTOMER'S
DIRECT CONDUIT
HOOK-UP.

40 1/2"

FURNISHED
BY OPPD

21"

30" MIN

ID TAPE
BY OPPD

OPPD SECONDARY
LATERAL
IN & OUT.

UNDERGROUND METER DISTRIBUTION
CENTER FURNISHED AND INSTALLED BY OPPD.

ONE LINE DIAGRAM

PRE-WIRED FROM
MID-RETAIL

METER CABINET

CUSTOMER'S DISCONNECT AND
OVERCURRENT DEVICE MUST BE
COMPATIBLE WITH MANUFACTURER'S PANEL
(ONE CUSTOMER PER PANEL).
MOBILE HOME PARK UNDERGROUND SERVICE

120/240V SINGLE PHASE
(DOUBLE)
200 AMPERE MAX SERVICE EACH

FURNISHED BY OPPD
FURNISHED BY OPPD
FURNISHED BY OPPD

CUSTOMER'S DISCONNECT AND
OVERCURRENT DEVICE,
SEE NSC-501.
ADDRESS, LOT NUMBER,
A PERMANENT IDENTIFICATION
POSTED ON OUTSIDE OF
EACH CABINET, BY CUSTOMER.

GROUND LINE
FINAL GRADE
43 1/2"
23 1/2"
21"
56" MIN

ID TAPE BY OPPD
OPPD SECONDARY LATERAL
IN A CUT.

UNDERGROUND METER DISTRIBUTION
CENTER FURNISHED AND INSTALLED BY OPPD.

ONE LINE DIAGRAM

CUSTOMER'S DISCONNECT AND
OVERCURRENT DEVICE MUST BE
COMPATIBLE WITH MANUFACTURER'S PANEL
(ONE CUSTOMER PER PANEL).

Revised 07-03-00 By BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE _________
MOBILE HOME PARK SECONDARY SERVICE
FROM OVERHEAD

SERVICE ENTRANCE HEAD TO BE 3' ABOVE NEUTRAL INSULATOR

JUMPER TO EXTEND ALUMINUM 3 FEET FROM SERVICE ENTRANCE HEAD

SECONDARY CONDUCTORS FURNISHED AND INSTALLED BY G.P.P.D.

SERVICE CONDUCTORS FURNISHED AND INSTALLED BY G.P.P.D.

1 1/4" METER Sockets (2) FURNISHED BY CUSTOMER.

5' CLASS 6 POLE FURNISHED AND SET BY G.P.P.D.

1" LB CONDUIT

1" CONDUIT

1/2" X 3' NIPPLE

MOBILE HOME SERVICE EQUIPMENT SHALL BE "NATIONAL ELECTRICAL CODE" APPROVED

NOT FOR NEW CONSTRUCTION

GROUND WIRE TO BE NO LESS THAN A NUMBER 6 FROM THE BOTTOM METER TO THE GROUND ROD, FASTEN SECURELY TO POLE WITH STAPLES

CONTINUOUS COPPER GROUND WIRE TO BE BONDED IN AND TO THE METER SOCKET (S)

NEUTRAL CONDUCTOR MUST BE BONDED IN AND TO THE METER SOCKET (S)

2 NUMBER 2 RH-EW COPPER WIRES OR EQUIVALENT CONTINUOUS TO BOTTOM METER

1 NUMBER 3 RHT-OR COPPER WIRE TO BOTTOM METER

1 1/4" MINIMUM CONDUIT

1 1/4" X 3' NIPPLE

GROUNDED ROD PER CURRENT "NATIONAL ELECTRICAL CODE"

NOTES:

IF ONLY ONE METER IS REQUIRED OMIT TOP SOCKET TOGETHER WITH ITS SERVICE EQUIVALENT.

IF FOUR METERS ARE REQUIRED DUPLICATE THIS INSTALLATION ON OTHER SIDE OF POLE.

SIZE OF METERED CONDUCTORS TO BE NATIONAL ELECTRICAL CODE OR LARGER.

CUSTOMER TO FURNISH ALL MATERIAL, EXCEPT WHERE NOTED.

ALL MATERIAL FURNISHED BY THE CUSTOMER SHALL BE NOT LESS THAN THE STANDARDS AS SPECIFIED IN THE "NATIONAL ELECTRICAL CODE."

REFER TO SECTION 9.07 FOR INSTALLATION AND SERVICE REQUIREMENTS

Revised 05-24-07 By MCH
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE__________
SURFACE TYPE METER SOCKET

120/240 VOLT 3 WIRE 200 AMPERES
FOR CUSTOMERS WITH INTERCONNECTED GENERATION

NOTES:
- TERMINALS FOR MAXIMUM 250 KCMIL CONDUCTORS
- METER SOCKET AVAILABLE WITH FIFTH TERMINAL FOR THREE WIRE WITH SERVICE
- SERVICE CABINET AVAILABLE WITH 1 1/4", 1 1/2", 2", OR 3 1/2" INTERCHANGEABLE HUB OR BLANK COVER PLATE

THIS METER REQUIRED ONLY FOR METERING ENERGY SUPPLIED TO O.P.P.D. BY CUSTOMER'S GENERATION

3 KNOCKOUTS FOR 1" TO 1 1/2" CONDUIT IN SIDE AND BACK
SIDE VIEW COVER IN PLACE

2 KNOCKOUTS FOR 1/2" TO 1 1/2" CONDUIT
1 KNOCKOUT FOR 1/2" TO 2" CONDUIT
1 KNOCKOUT 1/4" FOR EQUIPMENT GROUND

REVISED 07-03-00  BY  BED
DESIGN ENTRY BY: ROBERT B ADAMS

ISSUED DATE__________
LIMITER INSTALLATION

750 KCMIL CABLES
120/208V 3Ø 4W
277/480V 3Ø 4W
480V 3Ø 3W – FOR MAINTENANCE ONLY

LIMITER LUG
CABLE

3'-6" MIN. TO SERVICE DUCTS,
TOP OR BOTTOM OF CUBICLE

9/16" DRILL
COPPER BUS BAR

LIMITER CATALOG ID - 0000162578

Revised 06-08-17 By AMJ
DESIGN ENTRY BY: ROBERT B ADAMS

12.02.2

LIMITER CATALOG ID - 0000162578

Revised 06-08-17 By AMJ
DESIGN ENTRY BY: ROBERT B ADAMS

12.02.2
CUSTOMER INSTALLED STREET LIGHT CONDUIT & PULLBOX IN AREAS OF REDEVELOPMENT

RECOMMENDED EXCAVATION
16" X 16" X 16" DEEP

STREET CURB

SEAL, END OF CONDUIT WITH TAPE

COMPACTED SOIL OR GRAVEL

MIN. 4" COMPACTED GRAVEL

NOTE:
1. CUSTOMER TO COMPACT A MINIMUM OF 4" OF GRAVEL.
2. CUSTOMER TO INSTALL PULL BOX WITH LID (TO BE PROVIDED BY OPPD).
3. CUSTOMER TO INSTALL 2" PVC SCHEDULE 40 CONDUIT AT MIN. DEPTH OF 18" TO TOP OF CONDUIT, AND USE 18" RAD. BENDS INTO PULL BOX (ALL PROVIDED BY OPPD). CUSTOMER IS RESPONSIBLE FOR INSTALLING A PULL LINE IN THE CONDUIT.
4. CUSTOMER TO LEAVE A 4' X 4' OPENING IN SIDEWALK, CENTERED BEHIND PULL BOX.
5. CUSTOMER TO INSTALL 2" PVC SCHEDULE 40 18" RAD. BEND. TAPE END & MARK WITH CAUTION TAPE AND STAKE AT END OF BEND.
6. OPPD TO INSTALL 1 1/2" BLACK HDPE SCHEDULE 40 CONDUIT BETWEEN PULL BOX AND BASE OF STREET LIGHT POLE.
7. OPPD TO INSTALL STREET LIGHT POLE AT A MINIMUM DISTANCE OF 15" FROM EDGE OF PULL BOX TO CENTER OF POLE.
8. OPPD TO PULL STREET LIGHT CONDUCTOR (AND HOLIDAY LIGHT CIRCUIT) THROUGH CONDUITS AND MAKE TERMINATIONS IN PULL BOX AND STREET LIGHT POLE.

ISSUED DATE 00-00-00