

PRIMARY METERING

INTRODUCTION

1. Many large industrial/commercial customers request primary voltage for their service -- utilizing their own transformers to step-down the voltage for their requirements. For these installations, the primary must be metered in order to bill the customer for their power consumption.
2. A current transformer (CT) and a potential transformer (PT) are installed on each phase.
3. This section has undergone numerous changes. Some of the brackets shown in this section may not be available in our storerooms at the time of this printing. Almost all of the brackets have been re-designed or newly created.
4. Bypass switches have a new base with holes that can accommodate 3/4 inch bolts and are spaced 16 to 18 inches apart depending on the switch voltage class. For horizontal construction, fiberglass crossarms shall be installed such that the bypass switches can be bolted to each crossarm (See plate MD2).
5. Material listed that does not have a Item ID shown is for information only and is not issued as part of the plate. This material is used by Equipment Services to build the various structures.
6. DHLC plates are not included as part of the primary metering plates.
7. Place by-pass switches on the field side of the pole and place the primary conductor on the roadside of the pole.

MD1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 26.4KV

OPTIONS: 1/0, 636

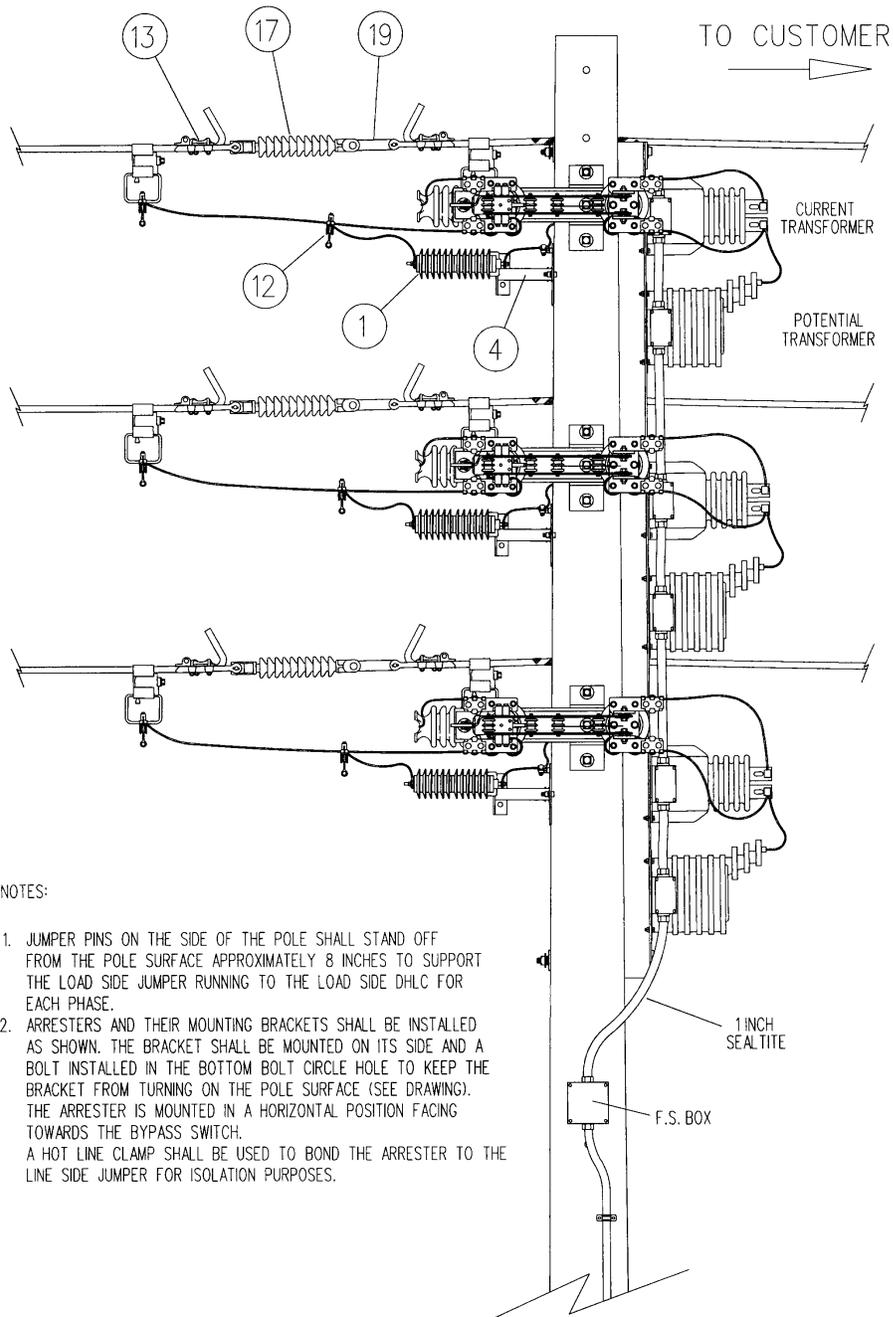
BOLT PLATE: NONE

NO.	ITEM ID	QTY	DESCRIPTION
1	ARR LI 003	3	ARRESTER, LIGHTNING, POLYMER, 21KV
2	BKT FS 001	3	BRACKET, FIBERGLASS STANDOFF, 2 IN. ROD
3	BKT PC 001	1	BRACKET, PRIMARY CLUSTER RACK
4	BKT RP 001	3	BRACKET, RISER POLE ARRESTER
5	BKT SM 005	3	BRACKET, SWITCH MOUNTING, FOR BYPASS SWITCHES
6	BOL DA 015	3	BOLT, DOUBLE ARMING, 3/4X14
7	BOL DA 016	6	BOLT, DOUBLE ARMING, 3/4X16
8	BOL DA 017	2	BOLT, DOUBLE ARMING, 3/4X18
9	BOL DA 018	3	BOLT, DOUBLE ARMING, 3/4X20
10	BOL MS 001	3	BOLT, MACHINE, SQUARE HEAD, 1/2X2
11	BOL MS 031	6	BOLT, MACHINE, SQUARE HEAD, 3/4X4
12	CLA HL 001	3	CLAMP, HOT-LINE
13	CLA SS ***	6	GENERAL CODE FOR STRAIGHT STRAIN CLAMP
14	CLA TG 001	3	CLAMP, TRANSFORMER TANK GROUND, 6 SOL. - 1/0 STR.
15	CNN VG 003	6	CONNECTOR, VISE TYPE, 6-2 SOL. 10-2 SOL.
16	COB CO 028	36	CONDUCTOR, BARE COPPER, #4 SOFT DRAWN
17	INS CO 001	3	INSULATOR, COMPOSITE, POLYMER DEADEND
18	INS VP 001	6	INSULATOR, VERTICAL POST, 34.5KV
19	LIK EX 001	3	LINK, EXTENSION, STRAIGHT, 18,000 LBS.
20	STU LI 001	3	STUD, LINE POST, 3/4 IN. DIA. HEAD, 1-3/4 IN. SHANK
21	TIE PR ***	3	GENERAL CODE FOR PREFORMED TIE
22	SWE HO 017	3	SWITCH, HOOK BYPASS, 25.8KV NOMINAL
23	WAS RD 005	46	WASHER, ROUND, 2 IN. DIA., FOR 3/4 IN. BOLT
24	WAS SF 003	5	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. BOLT
25	WAS SP 002	17	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. BOLT
26	--	3	CURRENT TRANSFORMERS
27	--	3	POTENTIAL TRANSFORMERS
28	--	24	3/8 IN. DIA. X 1-1/2 IN. BOLT
29	--	48	3/8 IN. FLAT WASHERS
30	--	24	3/8 IN. NUTS
31	--	1	WORK BOX BLANK PLUG
32	--	12	1 IN. SEAL-TIGHT STRAIGHT CONNECTORS
33	--	1	F.S. BOX
34	--	12	1 IN. SEAL-TIGHT CONDUIT
35	--	6	C.T. BUSHING CONNECTORS
36	--	7	#2 VISE-GRIP CONNECTORS

MD1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 26.4KV

VIEW 1



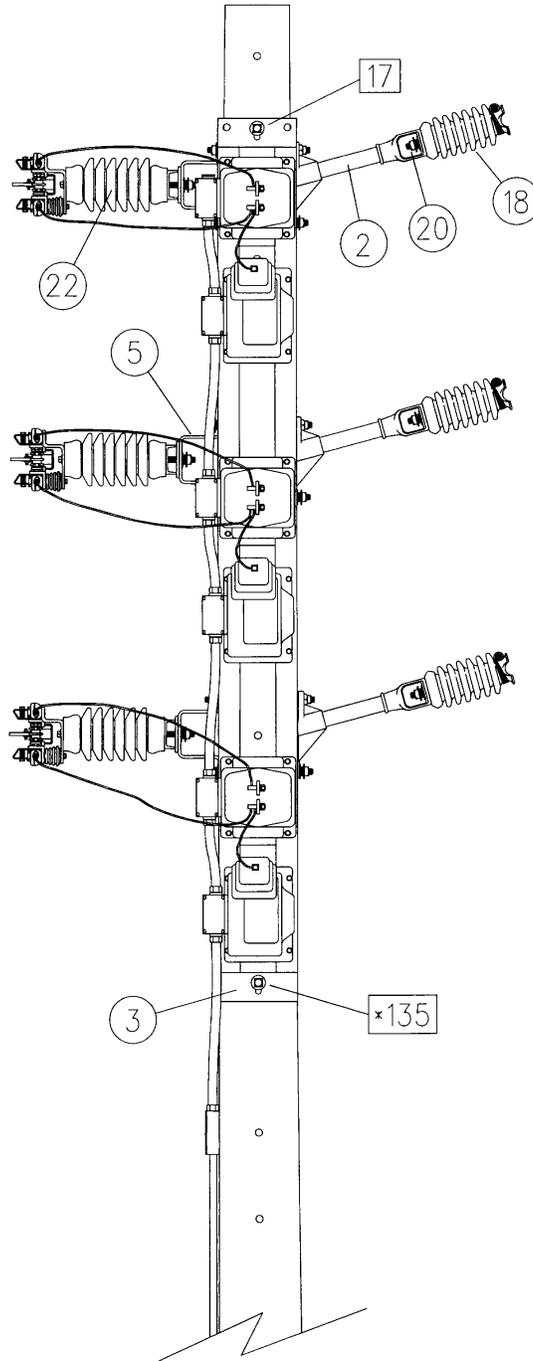
NOTES:

1. JUMPER PINS ON THE SIDE OF THE POLE SHALL STAND OFF FROM THE POLE SURFACE APPROXIMATELY 8 INCHES TO SUPPORT THE LOAD SIDE JUMPER RUNNING TO THE LOAD SIDE DHLC FOR EACH PHASE.
2. ARRESTERS AND THEIR MOUNTING BRACKETS SHALL BE INSTALLED AS SHOWN. THE BRACKET SHALL BE MOUNTED ON ITS SIDE AND A BOLT INSTALLED IN THE BOTTOM BOLT CIRCLE HOLE TO KEEP THE BRACKET FROM TURNING ON THE POLE SURFACE (SEE DRAWING). THE ARRESTER IS MOUNTED IN A HORIZONTAL POSITION FACING TOWARDS THE BYPASS SWITCH.
A HOT LINE CLAMP SHALL BE USED TO BOND THE ARRESTER TO THE LINE SIDE JUMPER FOR ISOLATION PURPOSES.

MD1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 26.4KV

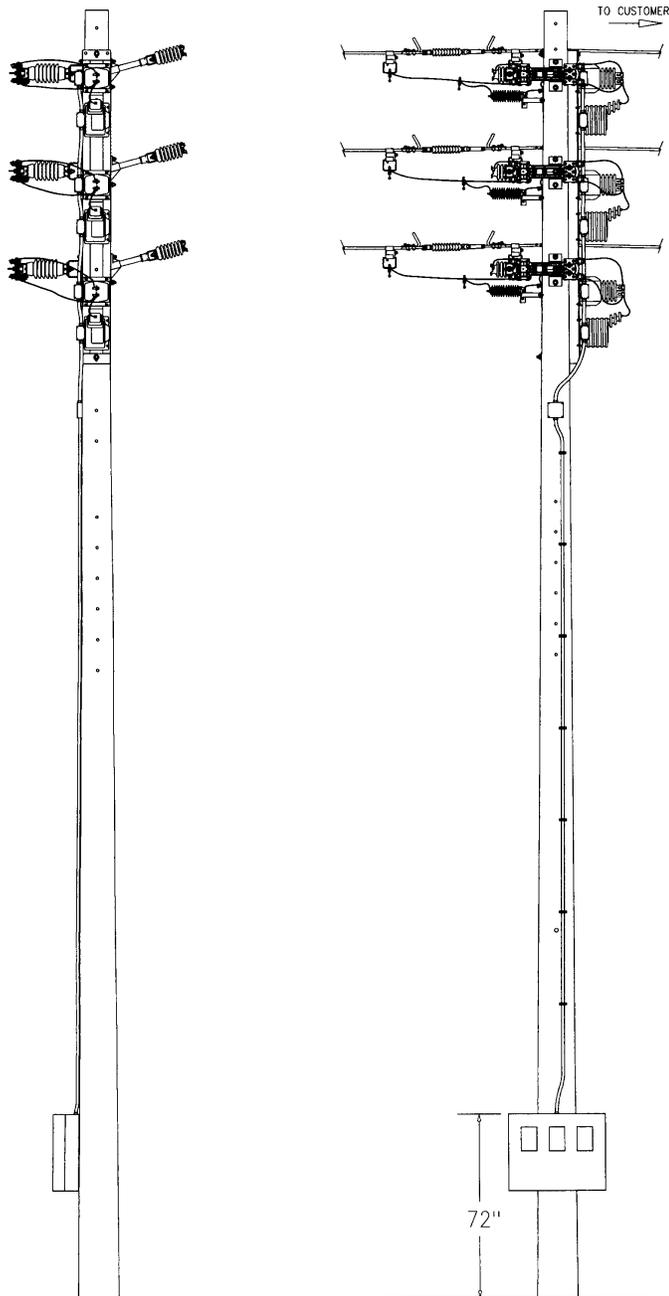
VIEW 2



MD1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 26.4KV

VIEW 3



MD2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 26.4KV

OPTIONS: , 1/0, 636

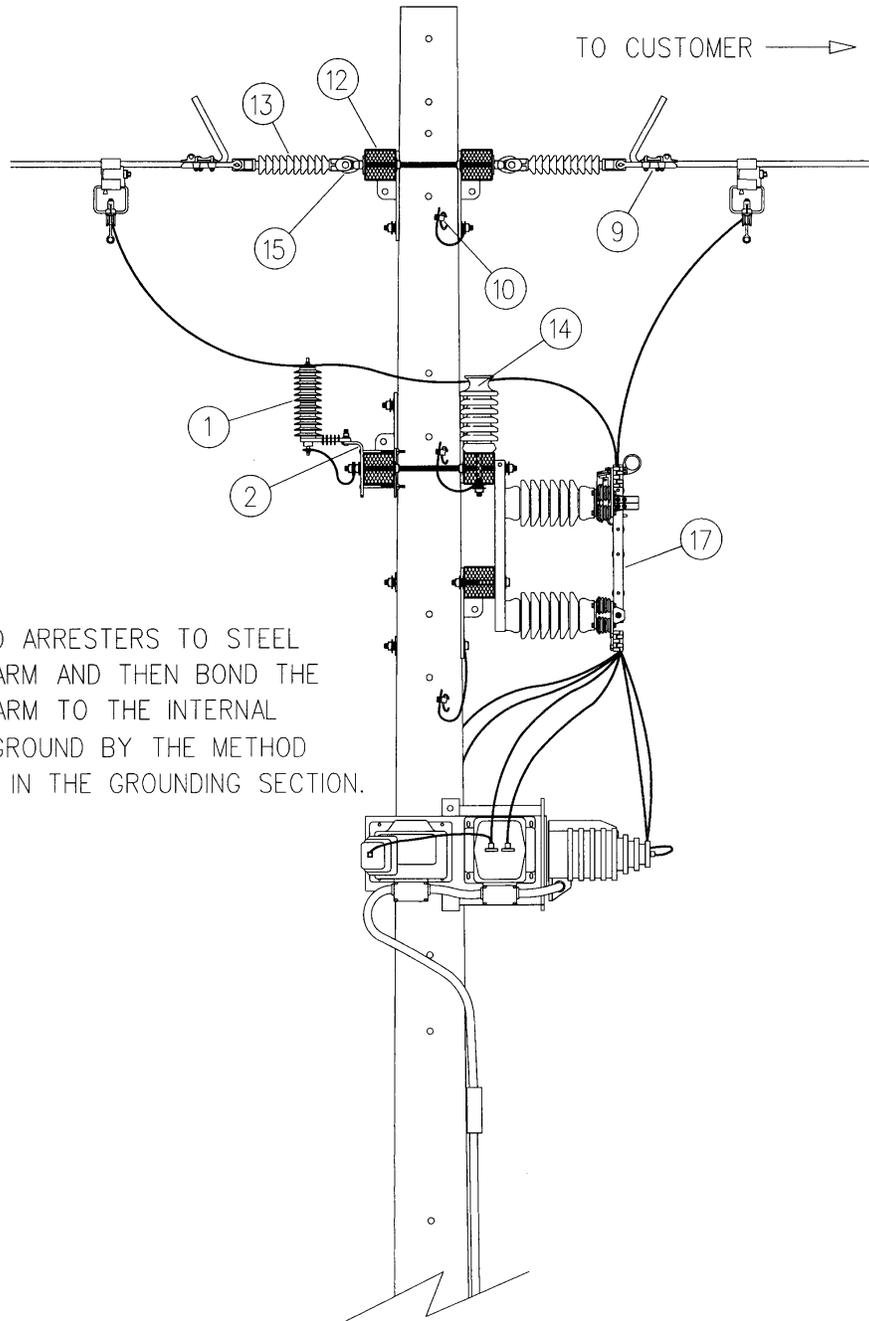
BOLT PLATE: NONE

NO.	ITEM ID	QTY	DESCRIPTION
1	ARR LI 003	3	ARRESTER, LIGHTNING, POLYMER, 21kV
2	BKT AC 003	3	BRACKET, ARRESTER/CUTOUT, CROSSARM MOUNT
3	BOL DA 016	2	BOLT, DOUBLE ARMING, 3/4X16
4	BOL DA 021	6	BOLT, DOUBLE ARMING, 3/4X26
5	BOL MS 034	2	BOLT, MACHINE, SQUARE HEAD, 3/4X10
6	BOL MS 036	1	BOLT, MACHINE, SQUARE HEAD, 3/4X14
7	BOL MS 037	2	BOLT, MACHINE, SQUARE HEAD, 3/4X16
8	BOL MS 038	1	BOLT, MACHINE, SQUARE HEAD, 3/4X18
9	CLA SS ***	6	GENERAL CODE FOR STRAIGHT STRAIN CLAMP
10	CNN VG 003	3	CONNECTOR, VISE TYPE, 6-2 SOL. 10-2 SOL.
11	COB CO 028	50	CONDUCTOR, BARE COPPER, #4 SOFT DRAWN
12	CXA FG ***	5	GENERAL CODE FOR FIBERGLASS CROSSARM
13	INS CO 001	6	INSULATOR, COMPOSITE, POLYMER DEADEND
14	INS VP 001	3	INSULATOR, VERTICAL POST, 34.5kV
15	NUT EY 003	6	NUT, EYE, 3/4
16	STU LI 003	3	STUD, LINE POST, 3/4 IN. HEAD, 3/4 IN. DIA. X 7 IN. SHANK
17	SWE HO 017	3	SWITCH, HOOK BYPASS, 25.8kV NOMINAL
18	WAS RD 005	30	WASHER, ROUND, 2 IN. DIA., FOR 3/4 IN. BOLT
19	WAS SF 003	4	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. BOLT
20	WAS SP 002	8	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. BOLT
21	--	3	"H" BRACKETS
22	--	6	TRANSFORMER MOUNTING PLATES
23	--	12	1/2 IN. DIA. X 2 IN. BOLTS AND NUTS
24	--	3	CURRENT TRANSFORMERS
25	--	3	POTENTIAL TRANSFORMERS
26	--	24	3/8 IN. DIA. X 1-1/2 IN. BOLT
27	--	48	3/8 IN. FLAT WASHERS
28	--	24	3/8 IN. NUTS
29	--	1	WORK BOX BLANK PLUG
30	--	12	1 IN. SEAL-TIGHT STRAIGHT CONNECTORS
31	--	1	F.S. BOX
32	--	12	1 IN. SEAL-TIGHT CONDUIT
33	--	6	C.T. BUSHING CONNECTORS
34	--	7	#2 VISE-GRIP CONNECTORS

MD2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 26.4KV

VIEW 1

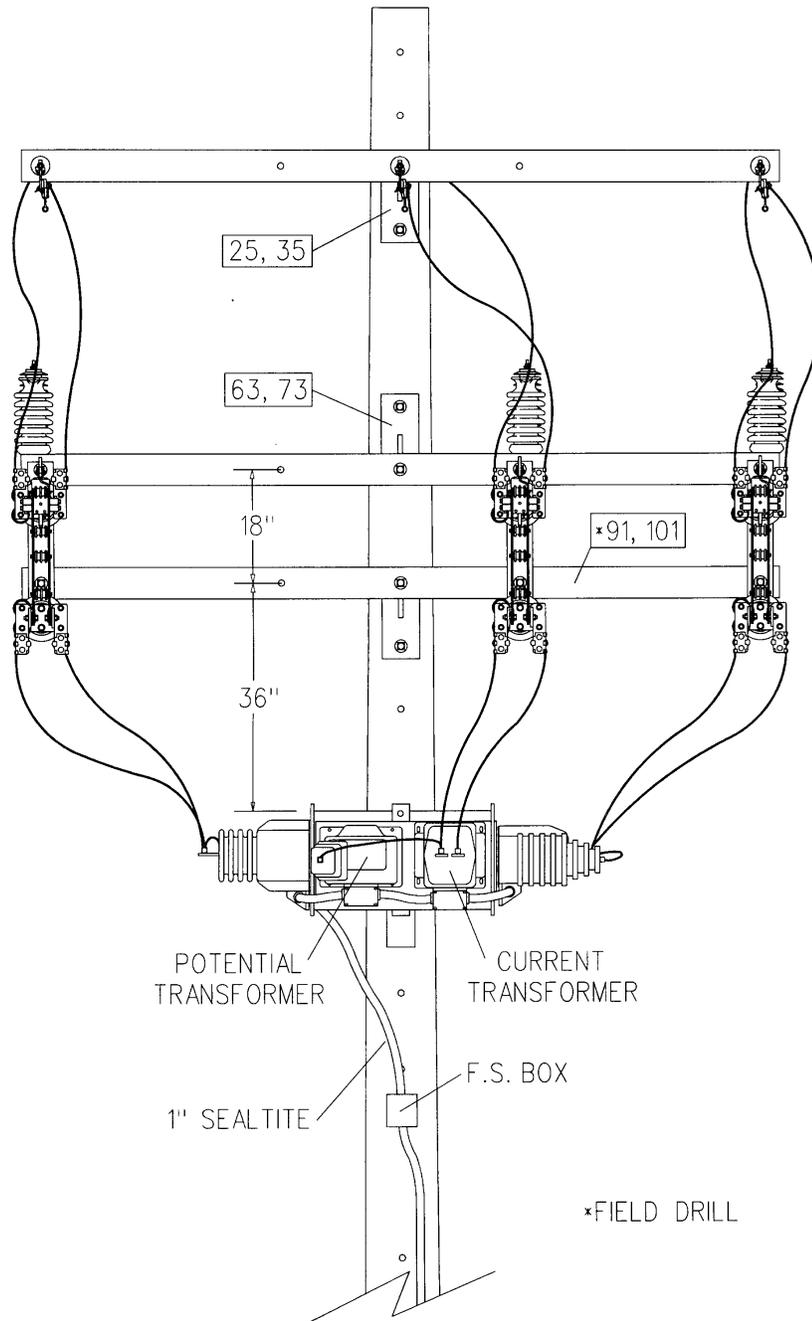


NOTE:
 GROUND ARRESTERS TO STEEL
 CROSSARM AND THEN BOND THE
 CROSSARM TO THE INTERNAL
 POLE GROUND BY THE METHOD
 SHOWN IN THE GROUNDING SECTION.

MD2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 26.4KV

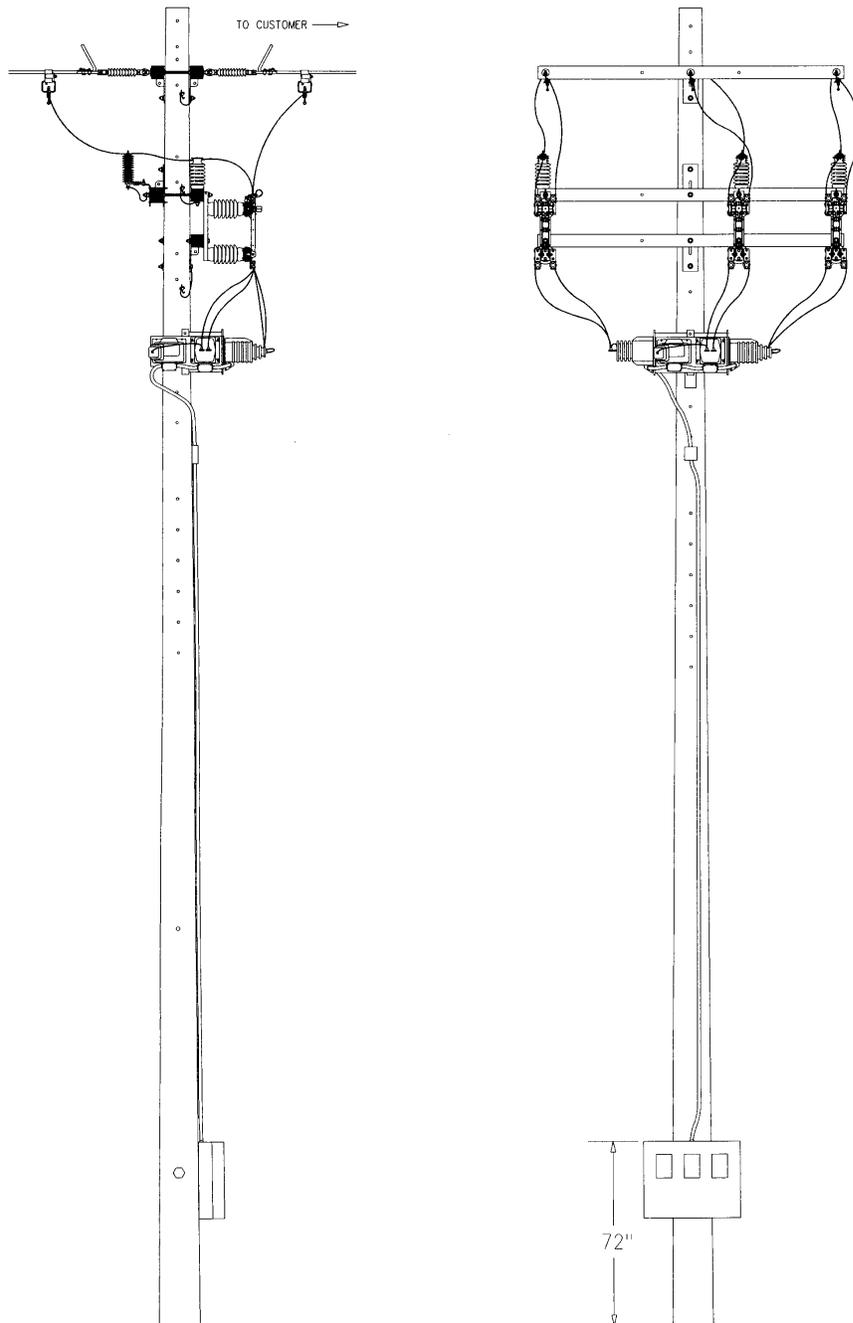
VIEW 2



MD2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 26.4KV

VIEW 3



MR1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 4KV

OPTIONS: 2, 1/0, 636

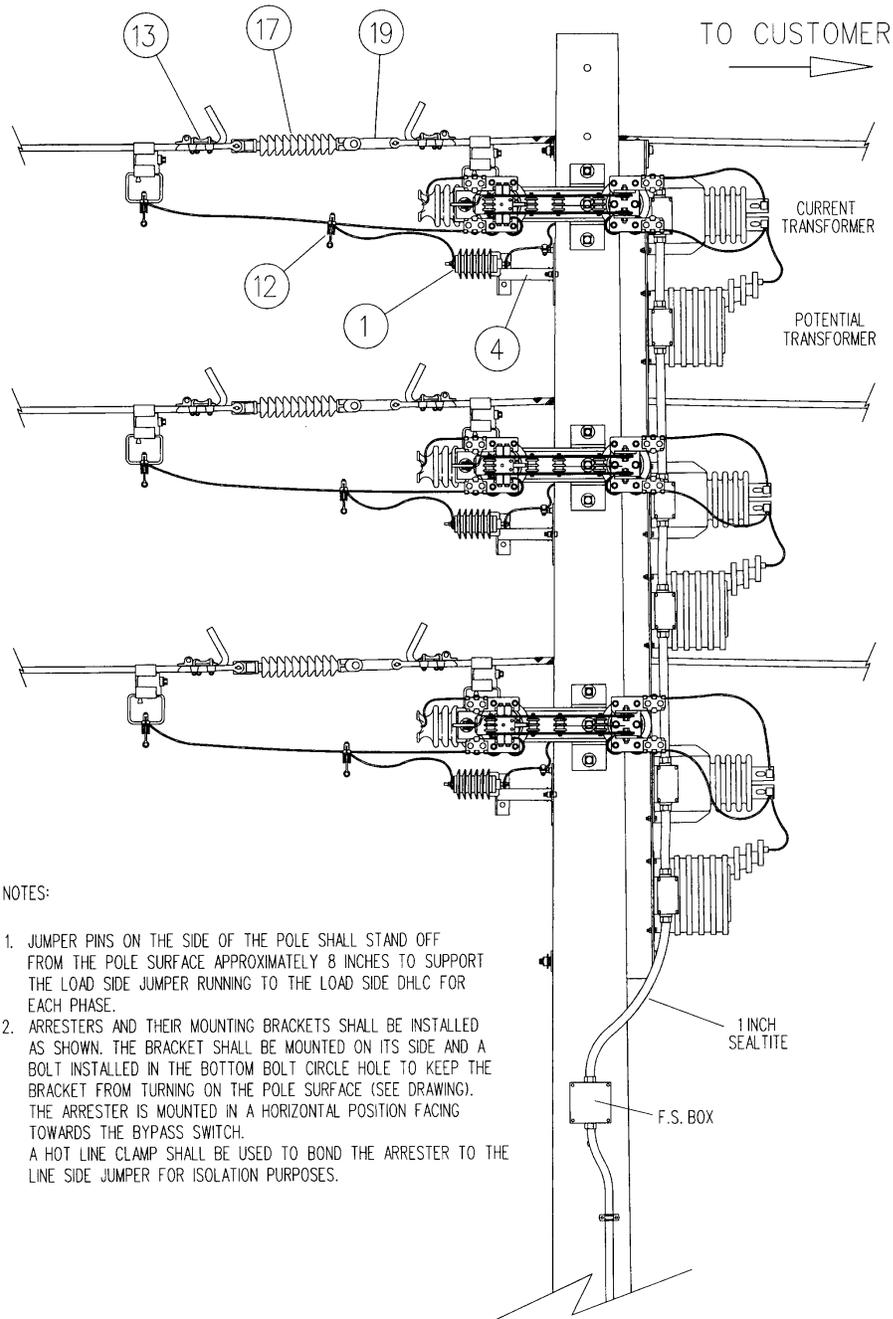
BOLT PLATE: NONE

NO.	ITEM ID	QTY	DESCRIPTION
1	ARR LI 001	3	ARRESTER, LIGHTNING, POLYMER, 3kV
2	BKT FS 001	3	BRACKET, FIBERGLASS STANDOFF, 2 IN ROD
3	BKT PC 001	1	BRACKET, PRIMARY CLUSTER RACK
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9	BOL DA 018	3	BOLT, DOUBLE ARMING, 3/4X20
10	BOL MS 001	3	BOLT, MACHINE, SQUARE HEAD, 1/2X2
11	BOL MS 031	6	BOLT, MACHINE, SQUARE HEAD, 3/4X4
12	CLA HL 001	3	CLAMP, HOT LINT
13	CLA SS ***	6	GENERAL CODE FOR STRAIGHT STRAIN CLAMP
14	CLA TG 001	3	CLAMP, TRANSFORMER TANK GROUND, 6 SOL – 1/0 STR
15	CNN VG 003	6	CONNECTOR, VISE TYPE, 6-2 SOL. 10-2 SOL.
16	COB CO 028	36	CONDUCTOR, BARE COPPER, #4 SOFT DRAWN
17	INS CO 001	3	INSULATOR, COMPOSITE, POLYMER DEADEND
18	INS VP 001	6	INSULATOR, VERTICAL POST, 34.5Kv
19	LIX EX 001	3	LINK, EXTENSION, STRAIGHT, 18,000 LBS.
20	STU LI 001	3	STUD, LINE POST, 3/4 IN. HEAD, 3/4 IN. DIA. X 1-3/4 IN. SHANK
21	TIE PR ***	3	GENERAL CODE FOR PREFORMED TIE
22	SWE HO 016	3	SWITCH, HOOK BYPASS, 15Kv
23	WAS RD 005	46	WASHER, ROUND, 2 IN. DIA., FOR 3/4 IN. BOLT
24	WAS SF 003	3	WASHER, SQUARE, FLAT, 3 IN., FOR 3/4 IN. BOLT
25	WAS SP 002	2	WASHER, SPRING, DOUBLE HELIX, FOR 3/4 IN. BOLT
26	--	3	CURRENT TRANSFORMERS
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35	--	6	C.T. BUSHING CONNECTORS
36	--	7	#2 VISE-GRIP CONNECTORS

MR1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 4KV

VIEW 1



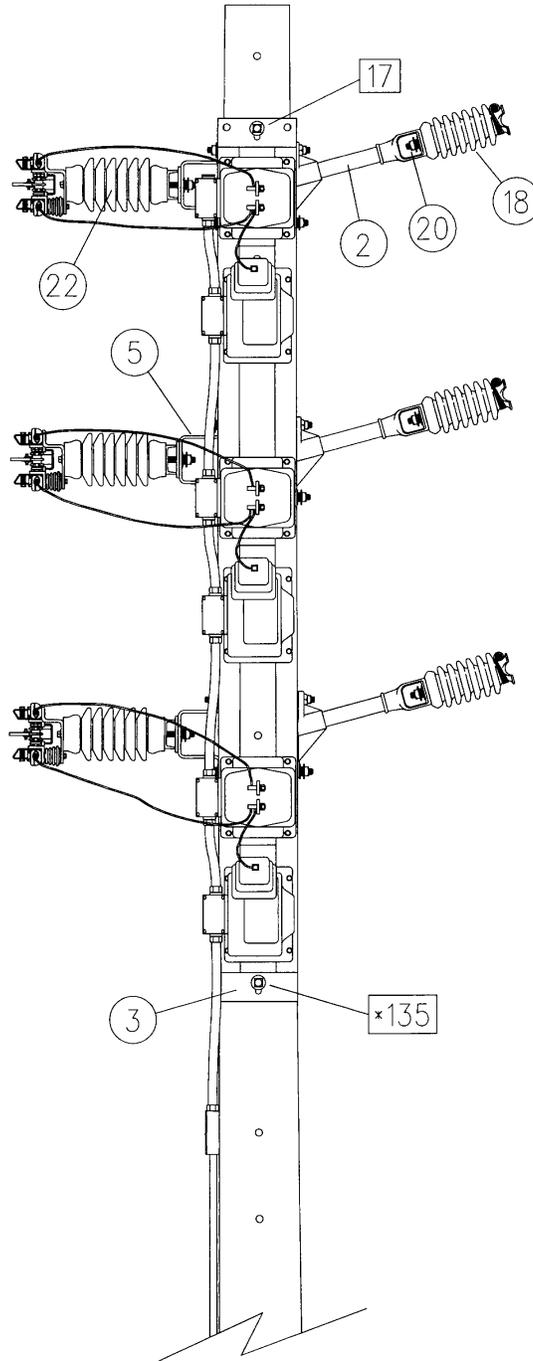
NOTES:

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PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 4KV

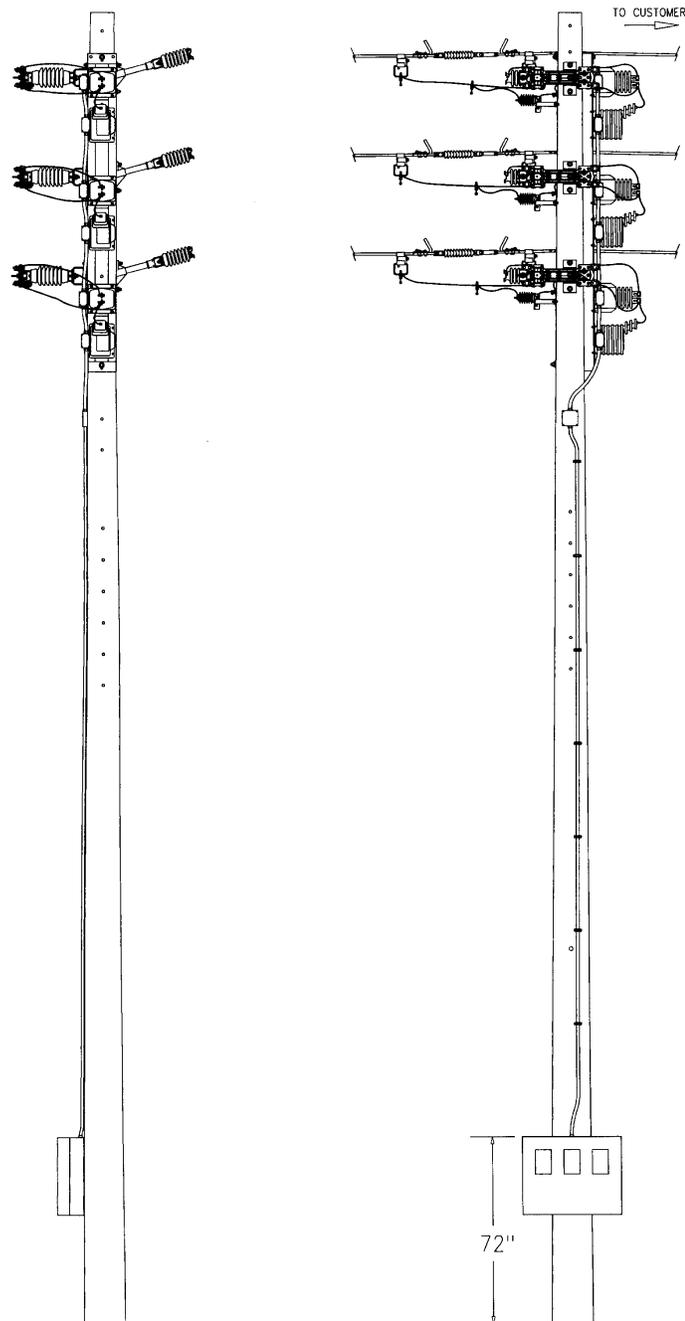
VIEW 2



MR1

PRIMARY METER EQUIPMENT – VERTICAL CONST. – TANGENT – 4KV

VIEW 3



MR2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 4KV

OPTIONS: 2, 1/0, 636

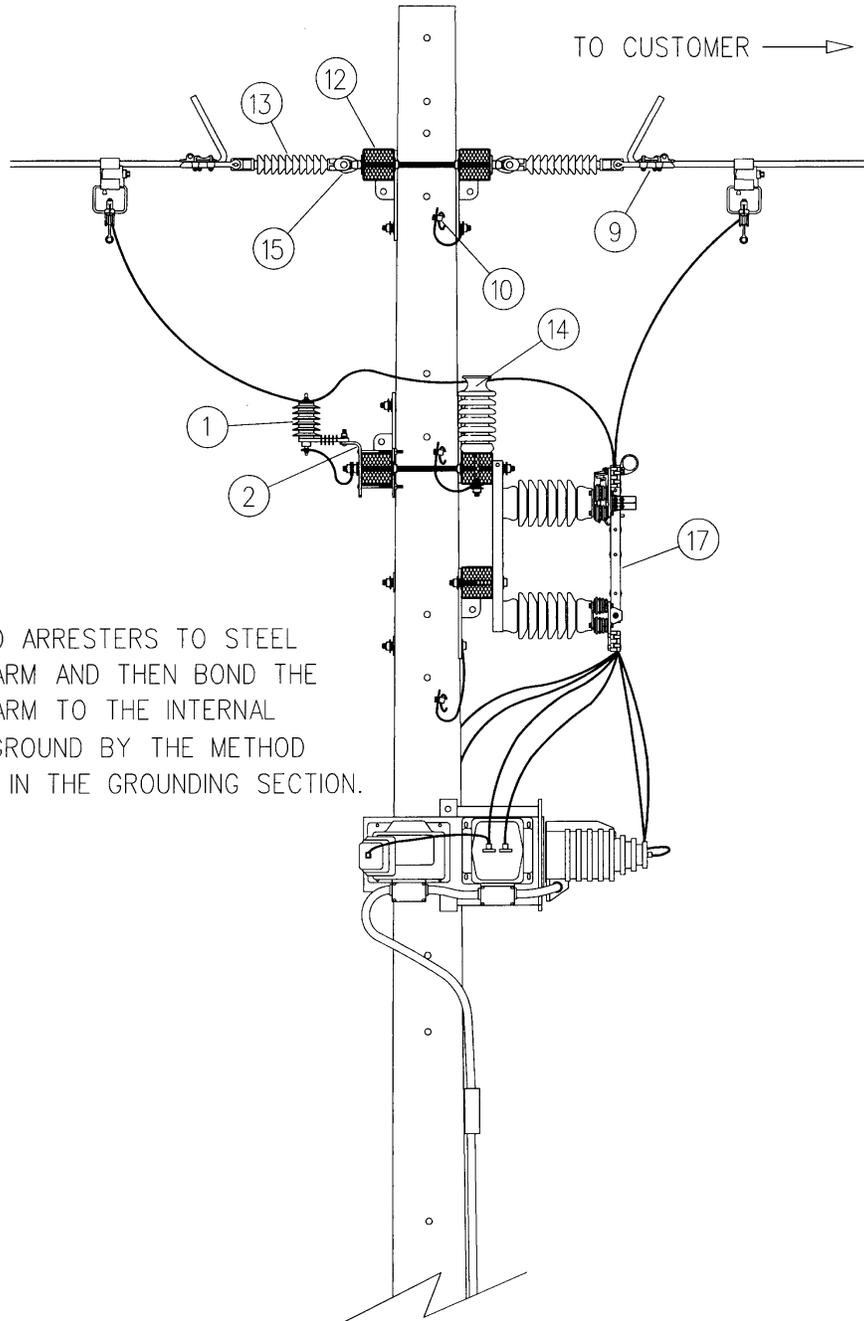
BOLT PLATE: NONE

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34	--	7	#2 VISE-GRIP CONNECTORS

MR2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 4KV

VIEW 1

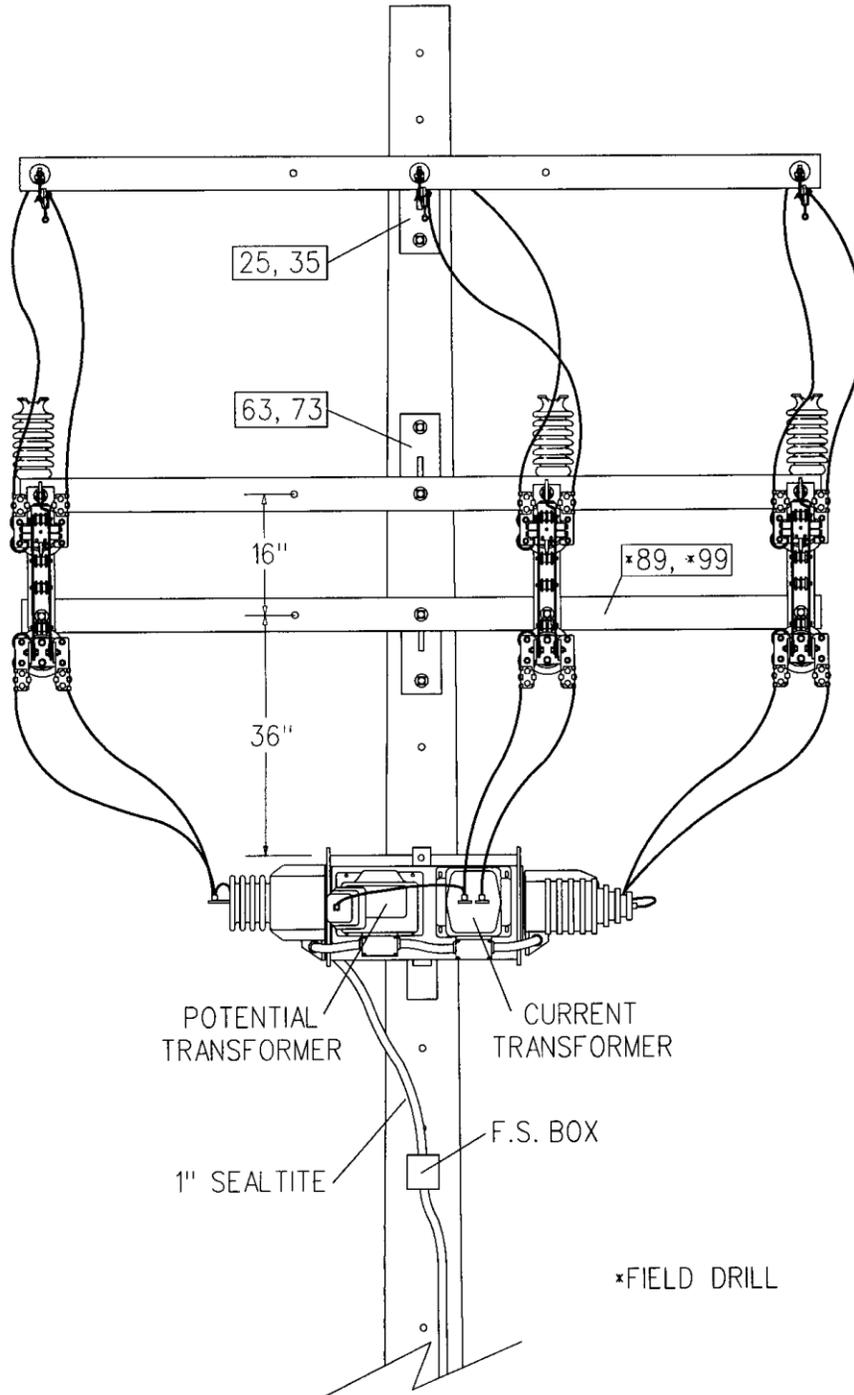


NOTE:
 GROUND ARRESTERS TO STEEL
 CROSSARM AND THEN BOND THE
 CROSSARM TO THE INTERNAL
 POLE GROUND BY THE METHOD
 SHOWN IN THE GROUNDING SECTION.

MR2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 4KV

VIEW 2



MR2

PRIMARY METER EQUIPMENT – HORIZONTAL CONST. – TANGENT – 4KV

VIEW 3

