

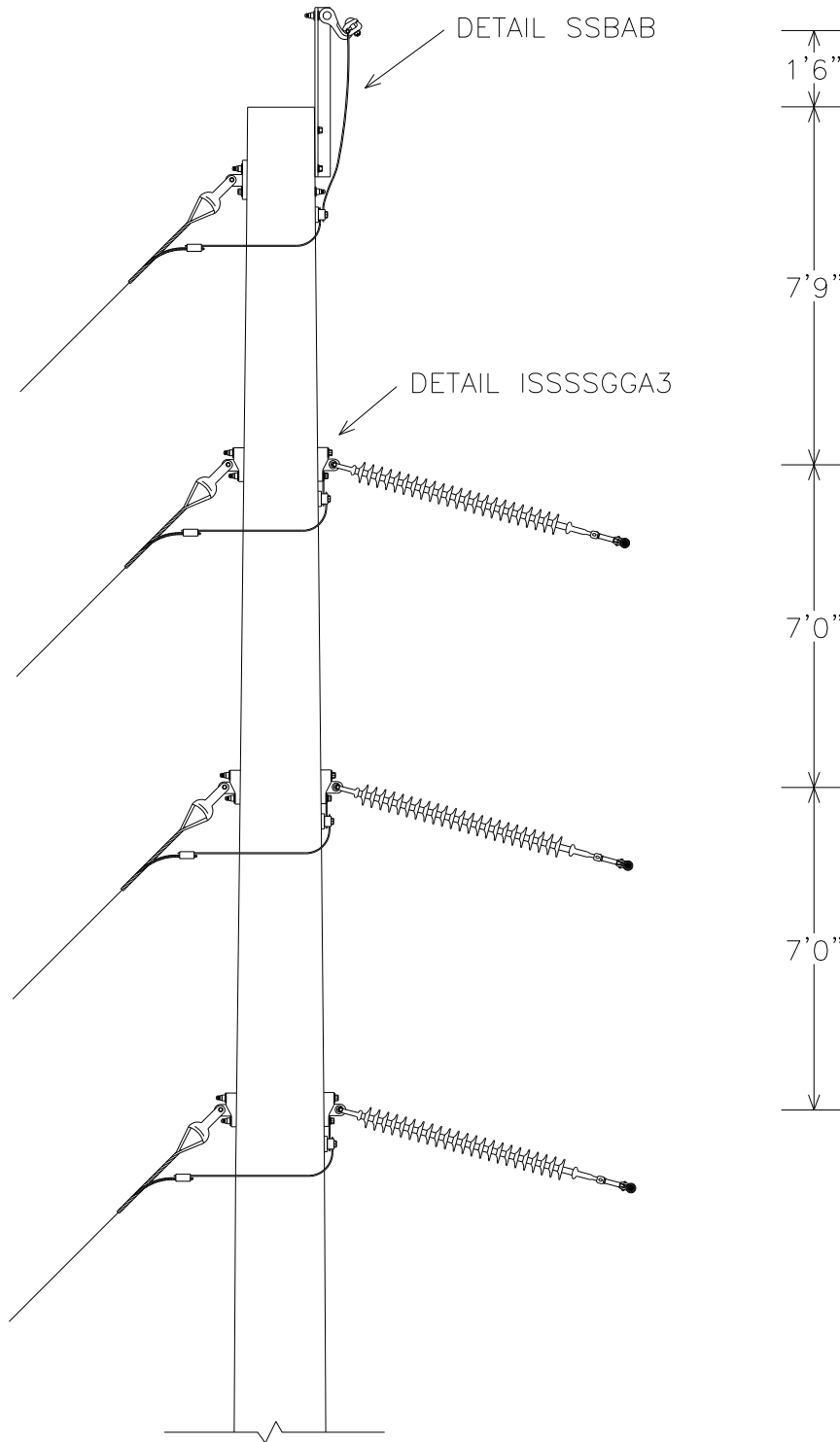
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A1213

69KV, SINGLE SUSPENSION, SINGLE GRIP, GUYED, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A1213 PLATES

A1213 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6"
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
56	INSSU 007	3	SUSPENSION INSULATOR, SILICON, Y-BALL COUPLING, 69KV, L = 43 INCHES, CLASS 52-5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	7	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A1213*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1213*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

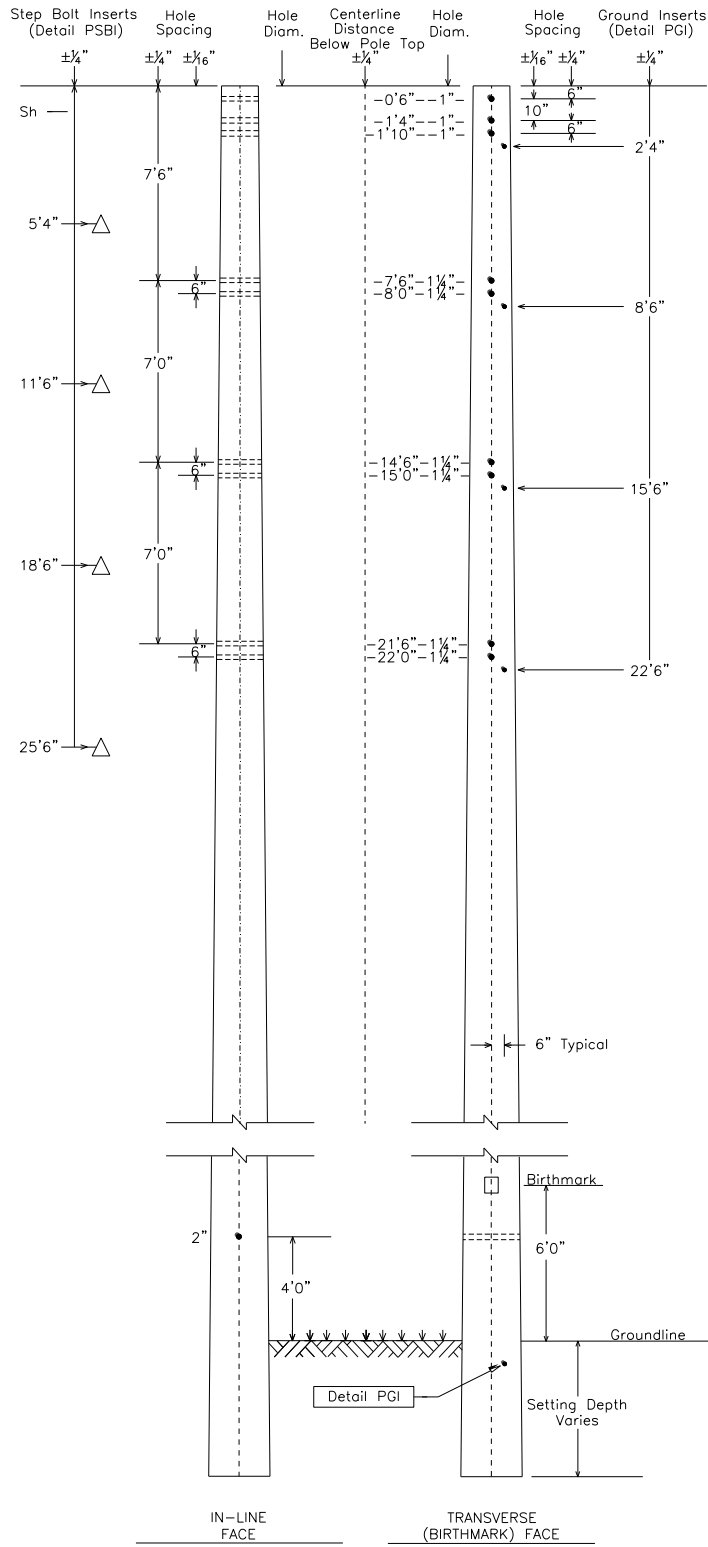
A1213*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1213*1590

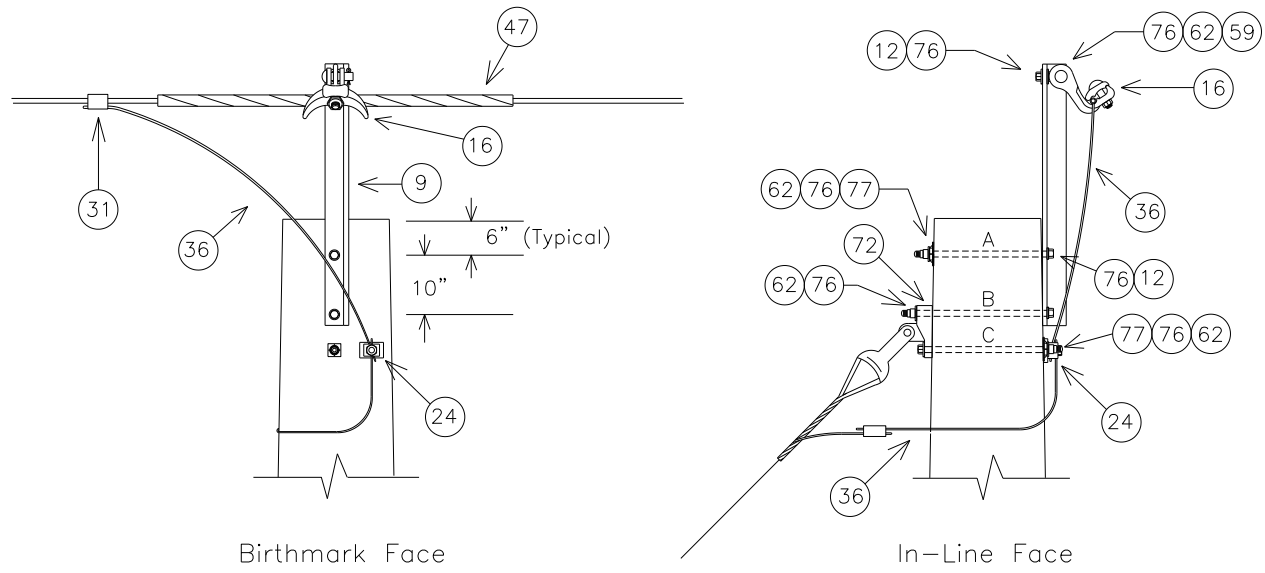
45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1213 DRILLING DETAIL



SSBAB

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

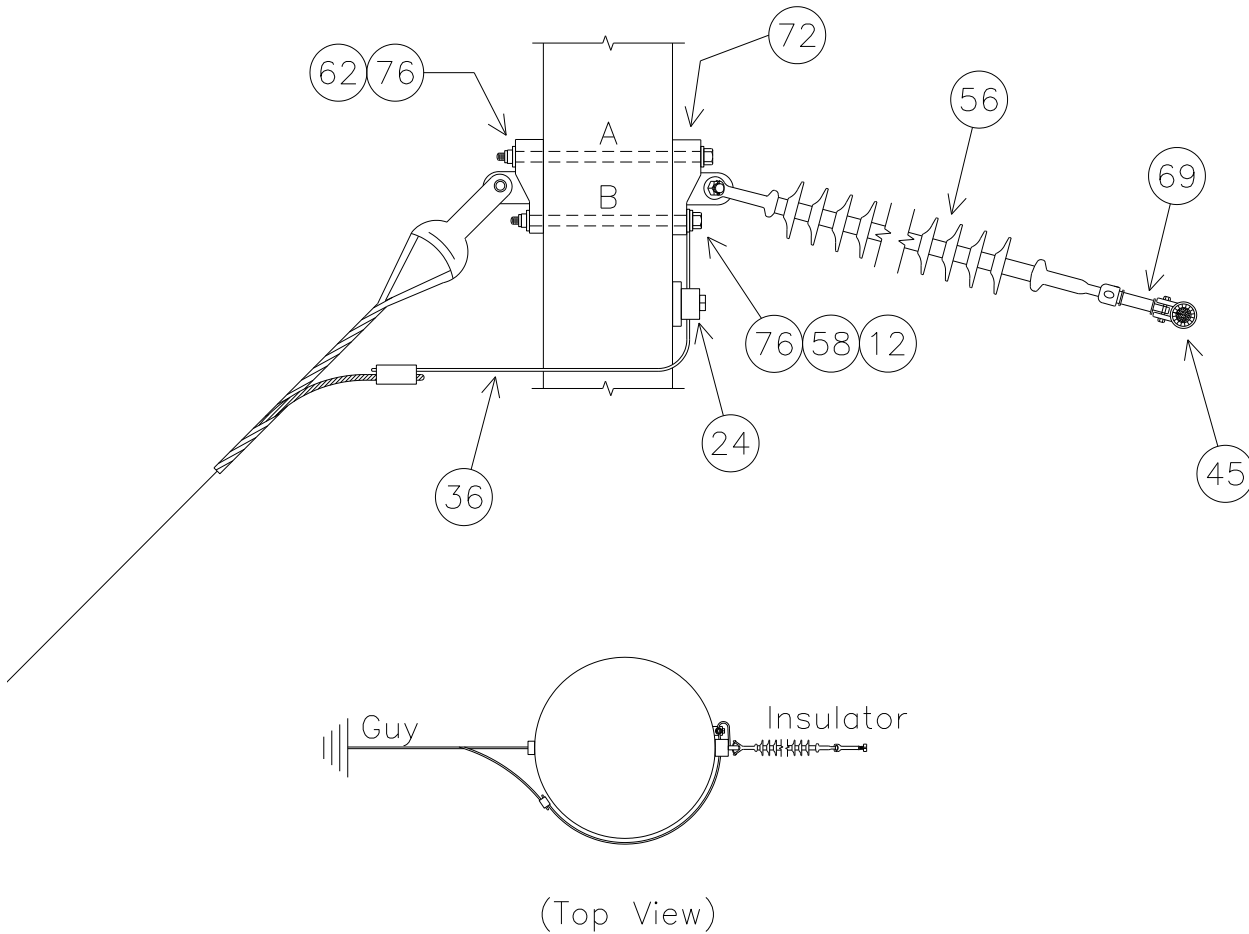
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	20.3

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	1	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSSSGGA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE SUSPENSION, SINGLE GRIP, GUYED, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.2	25.7	27.2
LOWER BOLT 'B' LENGTH (INCHES)	22.6	24.1	25.6

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSSSGGA3 PLATES

ISSSSGGA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	9 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
56	INSSU 007	3	SUSPENSION INSULATOR, SILICONE, Y-BALL COUPLING, 69KV, L = 43", CLASS 52-3/5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISSSSGGA3*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 20,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSSSGGA3*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSSSGGA3*954S

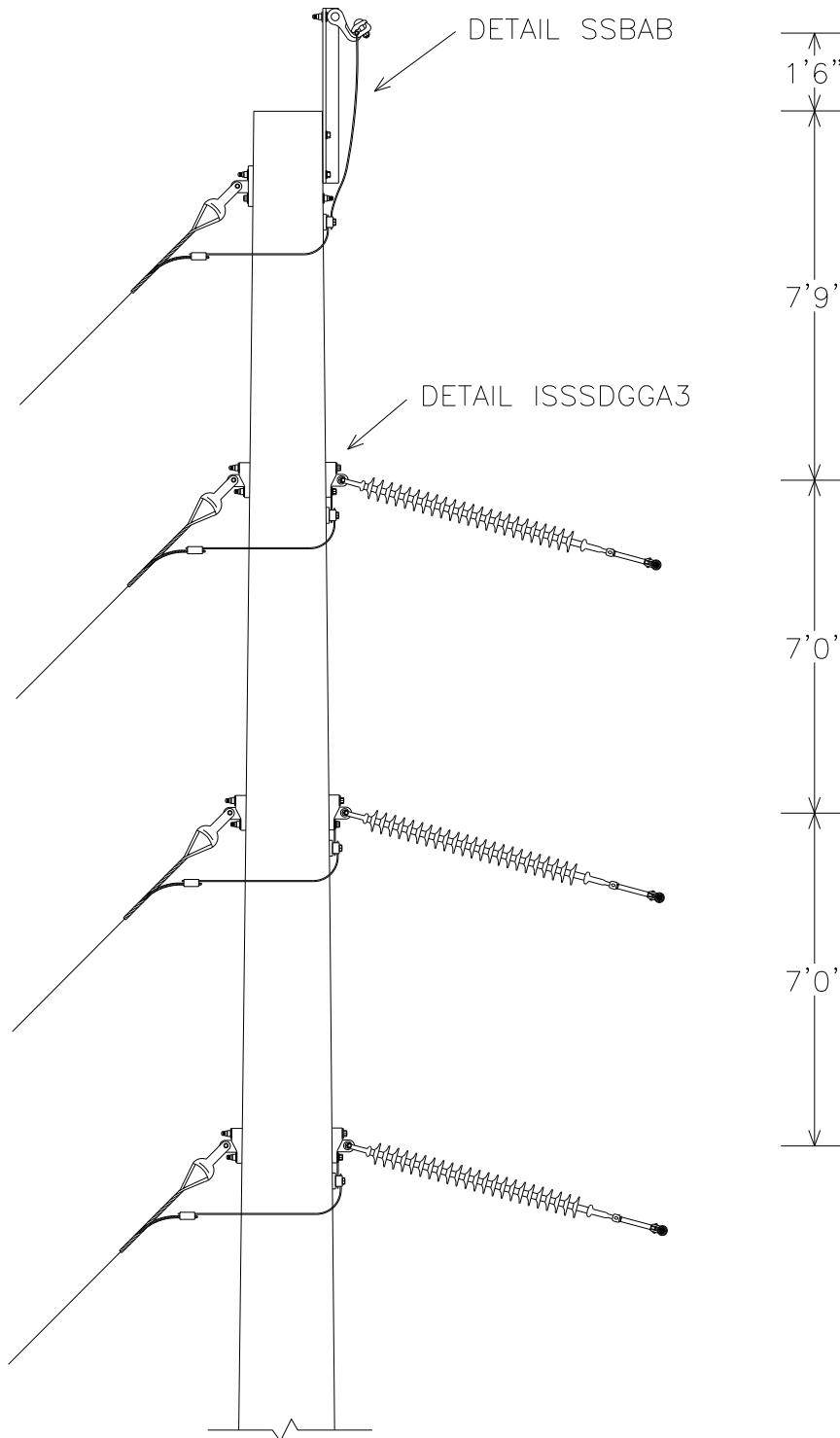
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSSSGGA3*1590

45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1214

69KV, SINGLE SUSPENSION, DOUBLE GRIP, GUYED, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S, 1590



A1214 PLATES

A1214 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6"
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAAAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
26	CLEHL 007	6	SOCKET-EYE CLEVIS, CLASS 52-5, L = 10", EYE = 3/4 THICK WITH 13/16 OPENING, H. D. G.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
56	INSSU 007	6	SUSPENSION INSULATOR, SILICON, Y-BALL COUPLING, 69KV, L = 43 INCHES, CLASS 52-5
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
67	SHAAN 003	6	SHACKLE, 3/4", 50,000#, GALVANIZED
72	TEEDE 003	7	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
80	YOKPL 003	3	TRIANGULAR SUSPENSION YOKE PLATE, 16" SPACING, GALVANIZED, 15/16 HOLE DIA.

A1214*954A

12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 006	3	DOUBLE AGS UNIT FOR 954A CONDUCTOR
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

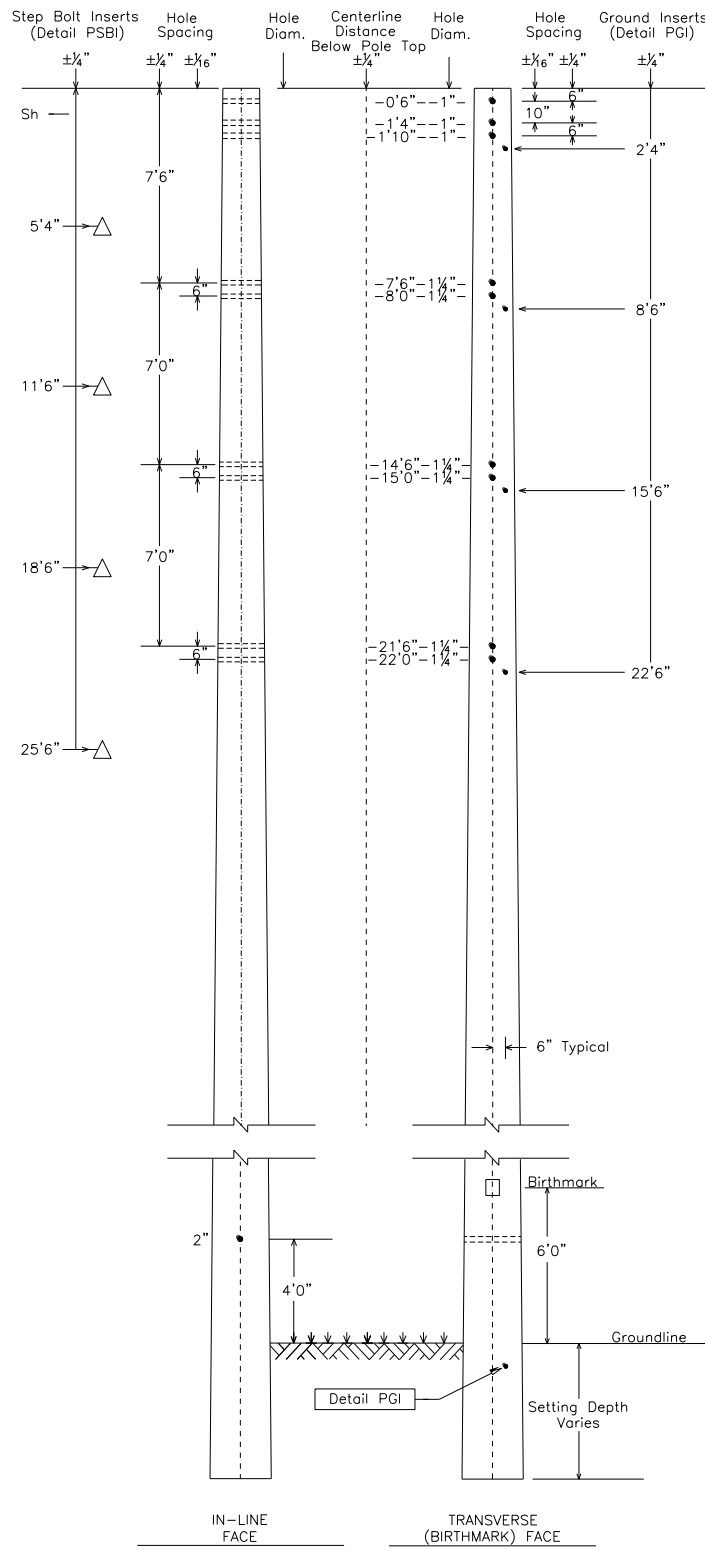
A1214*954S

12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 007	3	DOUBLE AGS UNIT FOR 954S CONDUCTOR
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1214*1590

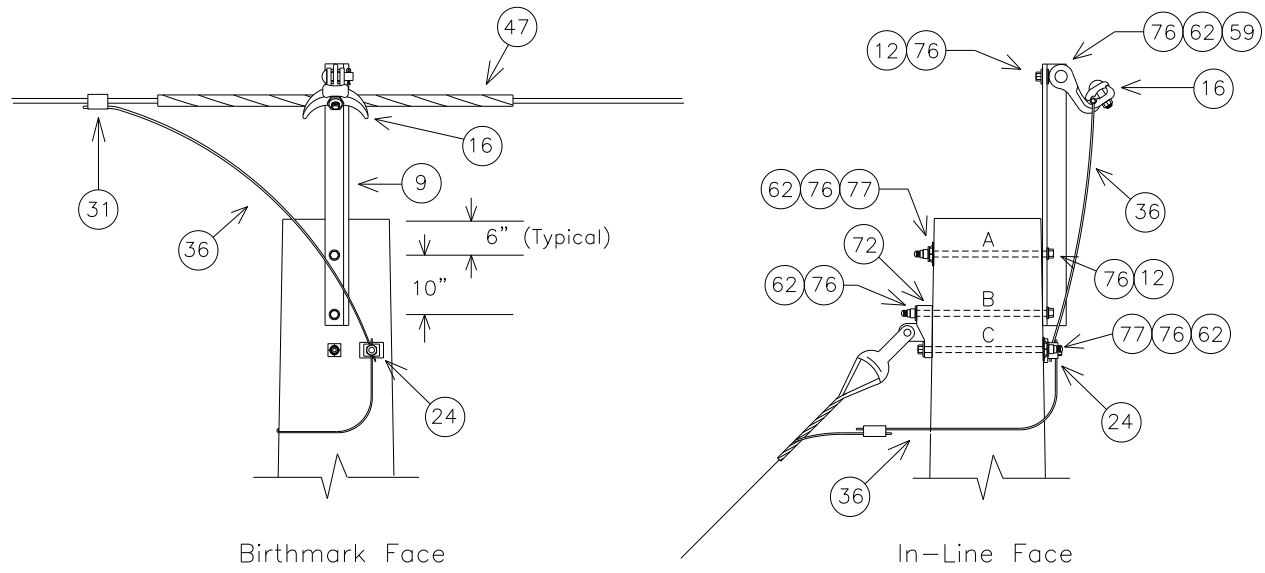
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 008	3	DOUBLE AGS UNIT FOR 1590 CONDUCTOR
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1214 DRILLING DETAIL



SSBAB

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

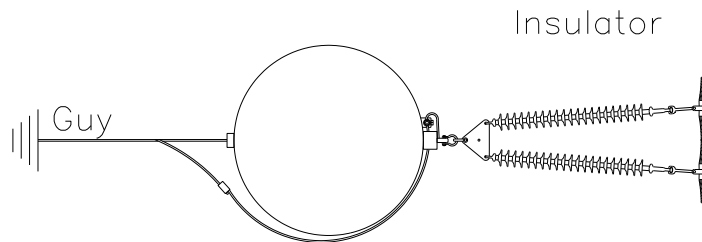
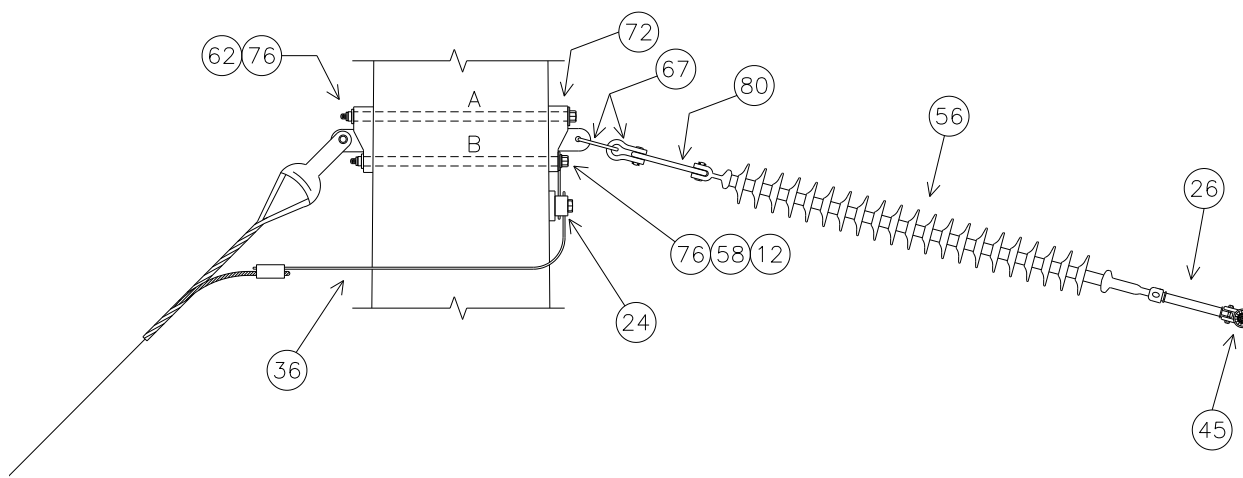
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	20.3

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	1	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSSDGGA3

INSULATOR FOR SPUN CONCRETE POLES
 DOUBLE SUSPENSION, DOUBLE GRIP, GUYED, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 954A, 954S, 1590



(Top View)

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
LOWER BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSSDGGA3 PLATES

ISSSDGGA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 007	6	SOCKET-EYE CLEVIS, CLASS 52-3/5, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
36	COBCO 028	9 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
56	INSSU 007	6	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 43", CLASS 52-3/5
67	SHAAN 003	6	SHACKLE, 3/4", 50,000#, GALVANIZED
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
80	YOKPL 003	3	TRIANGULAR SUSPENSION YOKE PLATE, 16" SPACING, GALVANIZED, 15/16 HOLE DIA.

ISSSDGGA3*954A

12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 006	3	DOUBLE AGS UNIT FOR 954A CONDUCTOR
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISSSDGGA3*954S

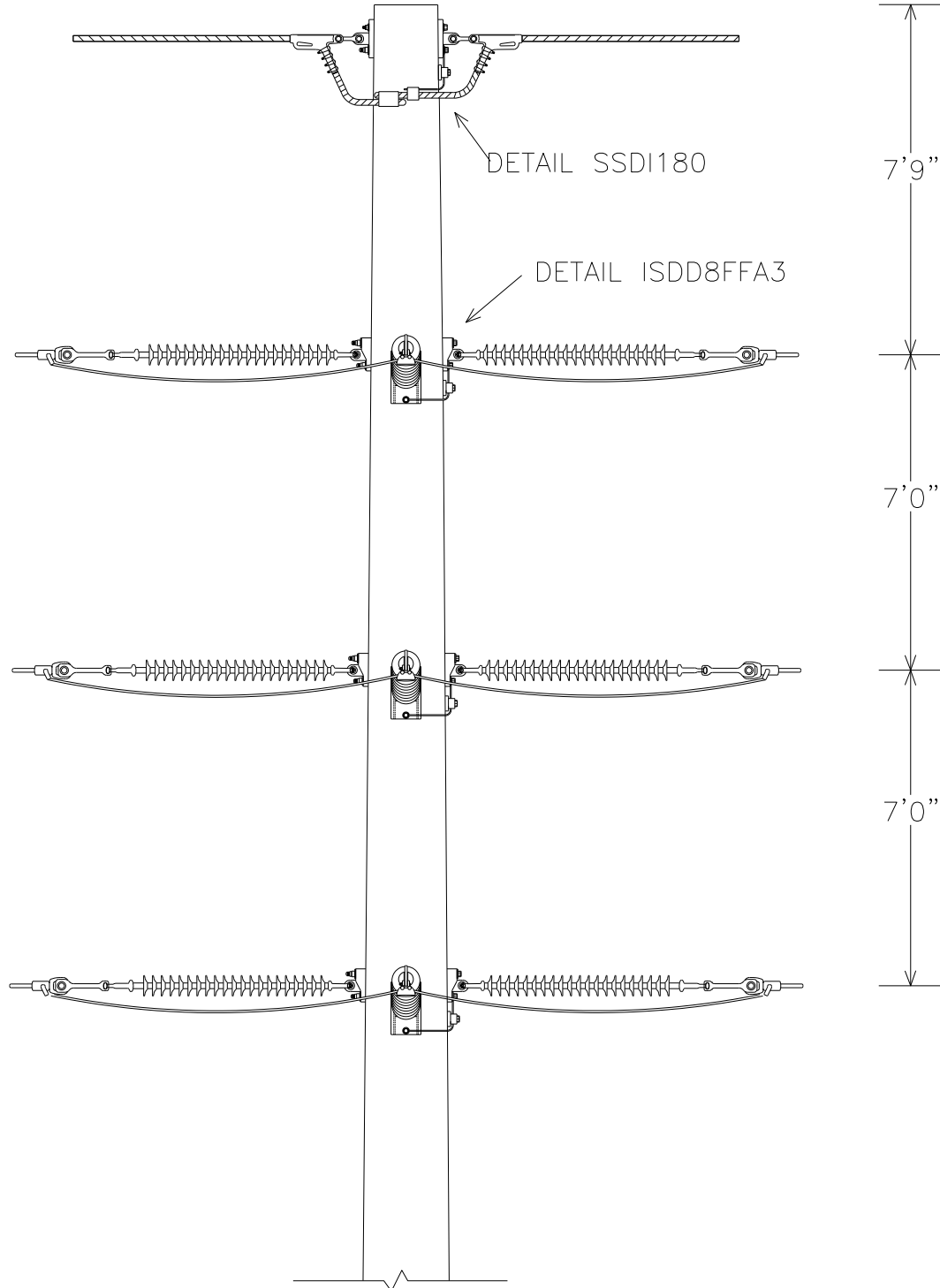
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 007	3	DOUBLE AGS UNIT FOR 954S CONDUCTOR
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISSSDGGA3*1590

12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
45	GRISA 008	3	DOUBLE AGS UNIT FOR 1590 CONDUCTOR
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1241C

69KV, DOUBLE DEADEND 180°, FULL TENSION TO FULL TENSION, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S, 1590



A1241C PLATES

A1241C BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	6	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
7	BALFI007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST SILICONE INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
69	SOCEY003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

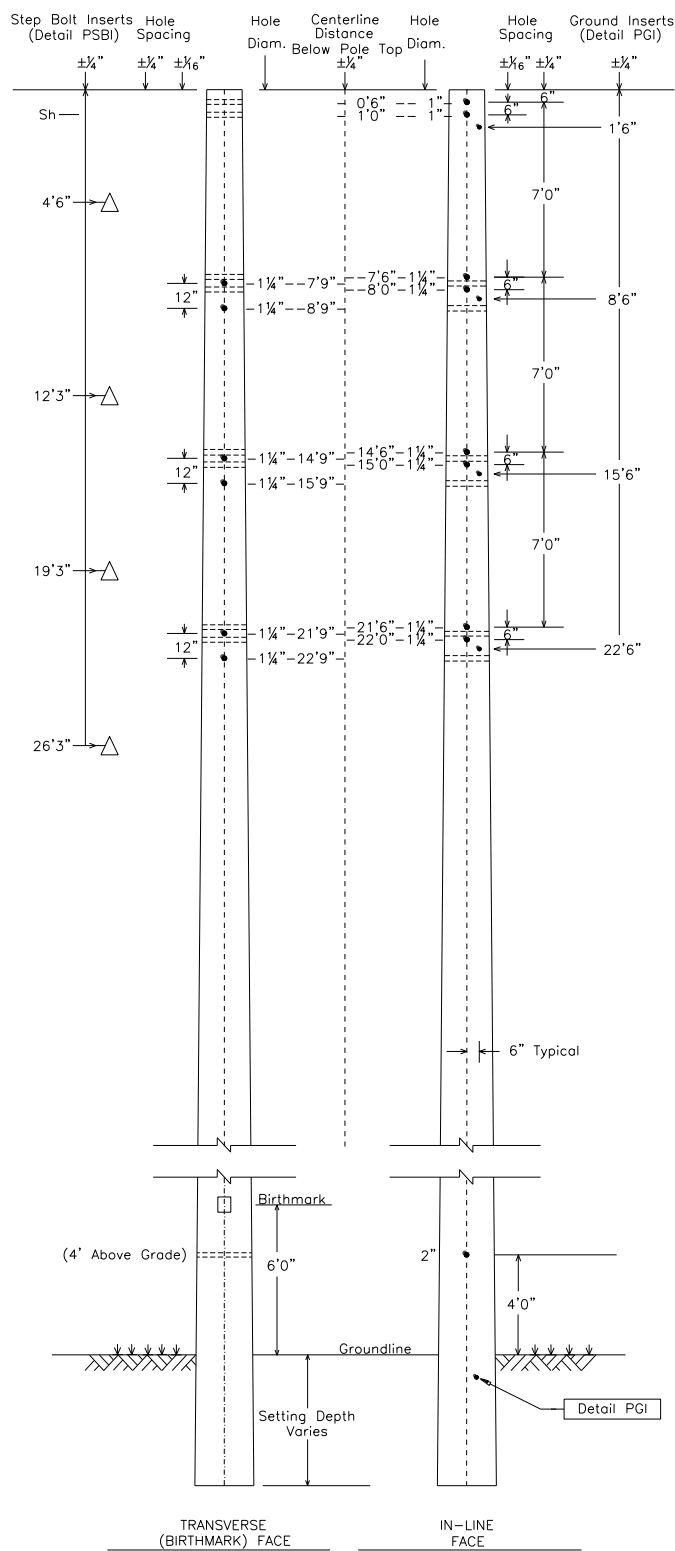
A1241C*556S, 954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20 (556S)	CLAJU 005	3	CUSHION GRIP SUSPENSION CLAMP FOR 556 ACSR
20 (954S)	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR
26 (556S)	CLEHL 004	6	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8, HOT DIPPED GALV.
26 (954S)	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42 (556S)	DEACB 003	6	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
42 (954S)	DEACB 005	6	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50 (556S)	INSSU 008	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-3/5
50 (954S)	INSDU 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1241C*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 007	6	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDU 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1241C DRILLING DETAIL

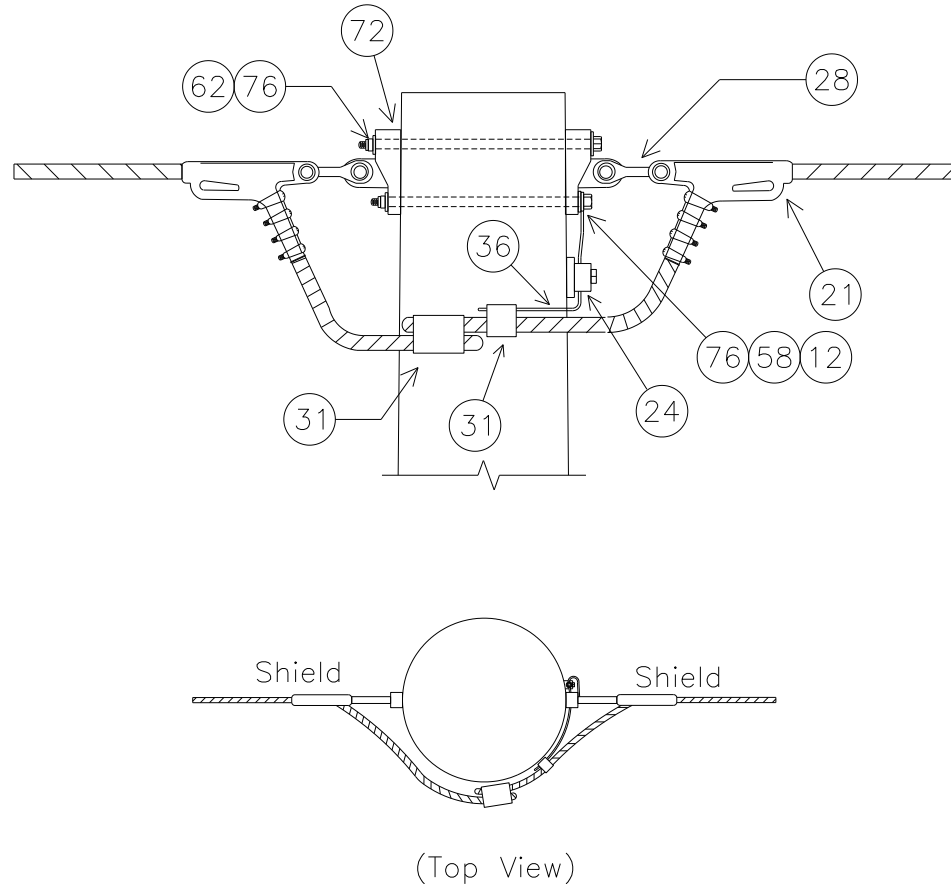


REVISÉ: OCTOBRE 2013

REVISÉ BY: MLR

APPROVED BY: KKR

SSDI180

SHIELD FOR SPUN CONCRETE POLES
DOUBLE INLINE 180°

NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

UPPER BOLT LENGTH	22.6
LOWER BOLT LENGTH	20.9

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

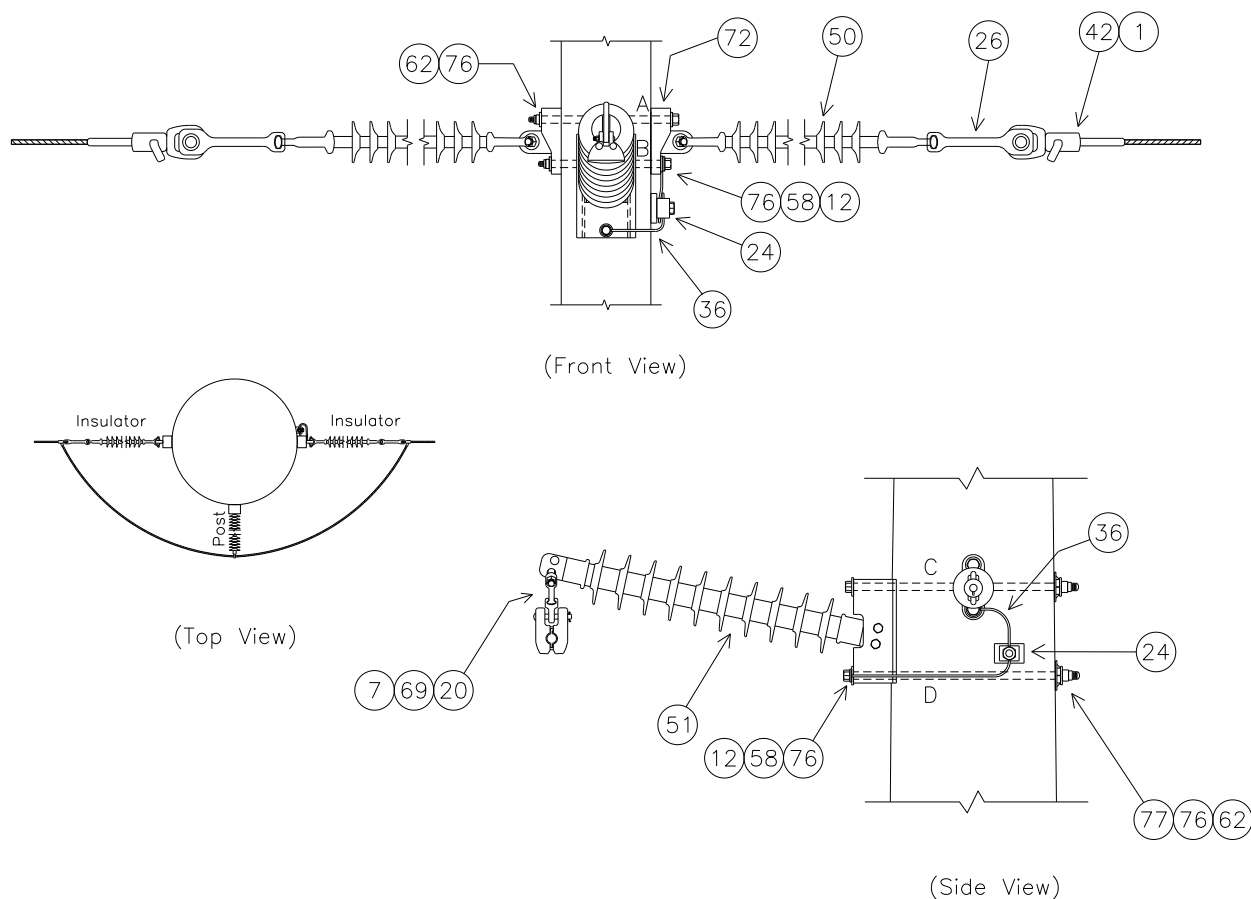
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISDD8FFA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 180°, FULL TENSION TO FULL TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

DEADEND INSULATOR	TOP	MIDDLE	BOTTOM
UPPER BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
LOWER BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7

POST INSULATOR	TOP	MIDDLE	BOTTOM
UPPER BOLT 'C' LENGTH (INCHES)	27.0	28.5	30.1
LOWER BOLT 'D' LENGTH (INCHES)	27.5	29.0	30.5

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD8FFA3 PLATES

ISDD8FFA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	6	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
7	BALFI007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
69	SOCEY003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

ISDD8FFA3*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 005	3	CUSHION GRIP SUSPENSION CLAMP FOR 556 ACSR
26	CLEHL 004	6	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8", H.D.G.
42	DEACB 003	6	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSSU 008	6	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-3/5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD8FFA3*954S

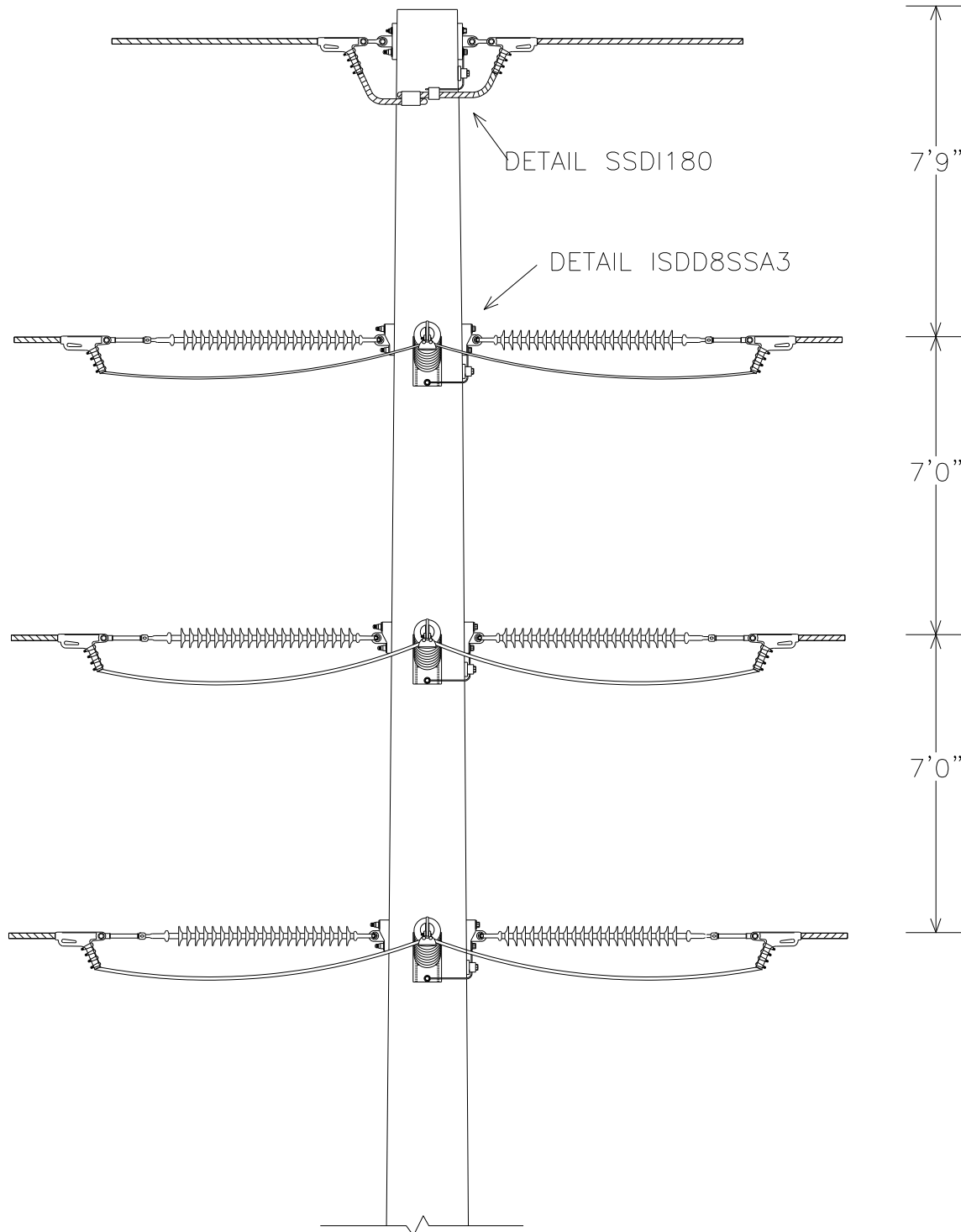
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 005	6	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD8FFA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
42	DEACB 007	6	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1241Q

69KV, DOUBLE DEADEND 180°, SLACK TENSION TO SLACK TENSION, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A1241Q PLATES

A1241Q BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	3	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	6	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSD 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
51	INSH 020	3	HORIZONTAL POST SILICONE INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
69	SOCEY003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

A1241Q*556S

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 005	3	CUSHION GRIP SUSPENSION CLAMP FOR 556 ACSR
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 003	3	ALUM. SLEEVE JUMPER FOR 556 ACSR, COMPRESSION SPLICE, NON-TENSION ONLY

A1241Q*954A

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 006	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 AAC
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 006	3	ALUM. SLEEVE JUMPER FOR 954 AAC, COMPRESSION SPLICE, NON-TENSION ONLY

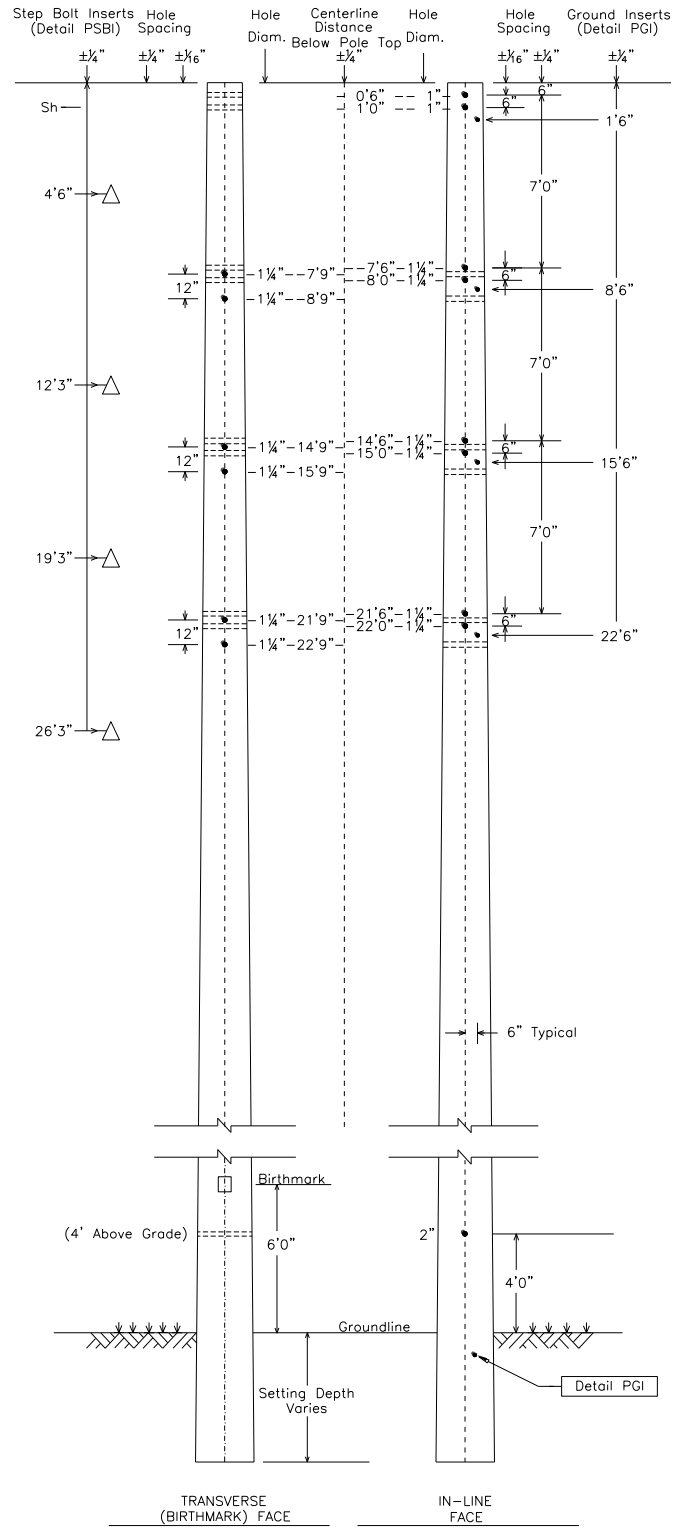
A1241Q*954S

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 965 ACSR
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 005	3	ALUM. SLEEVE JUMPER FOR 954 ACSR, COMPRESSION SPLICE, NON-TENSION ONLY

A1241Q*1590

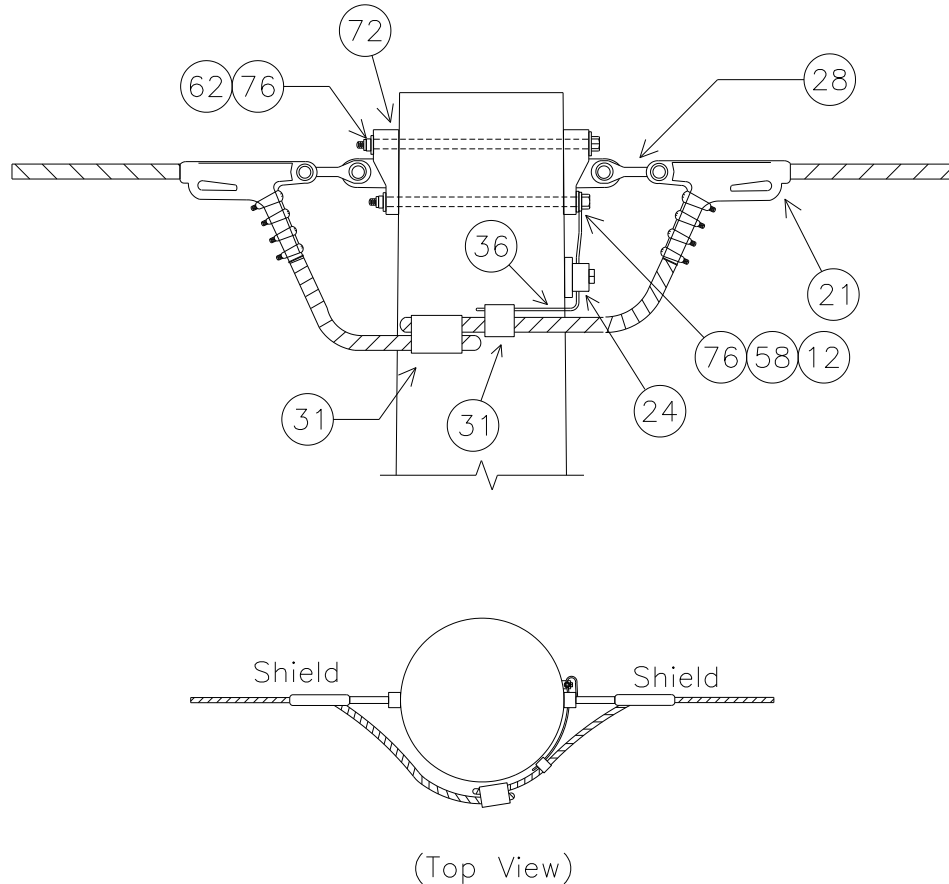
NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
21	CLAQD 006	6	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
68	SLEAJ 007	3	ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY

A1241Q DRILLING DETAIL



SSDI180

SHIELD FOR SPUN CONCRETE POLES
DOUBLE INLINE 180°



NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

UPPER BOLT LENGTH	22.6
LOWER BOLT LENGTH	20.9

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

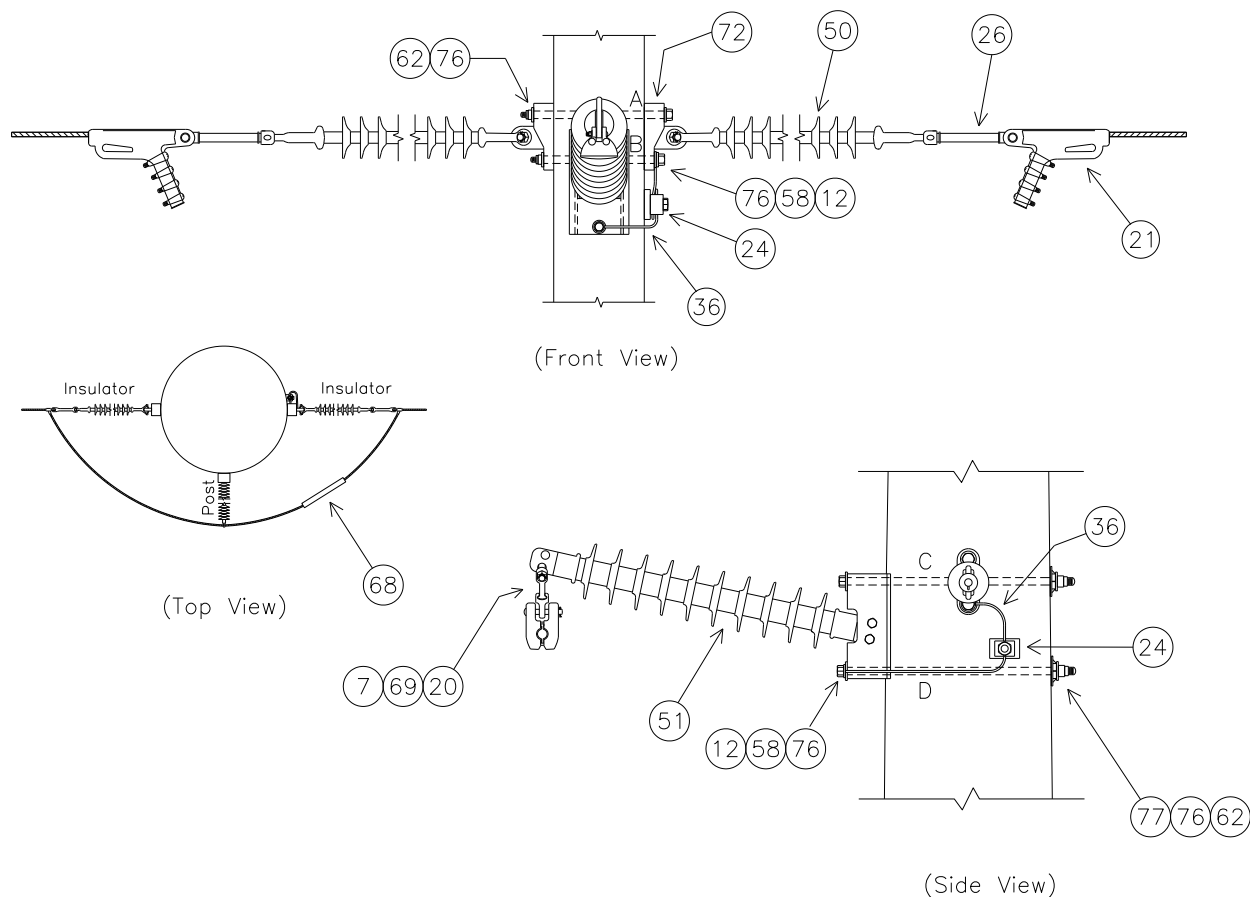
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISDD8SSA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 180°, SLACK TENSION TO SLACK TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

DEADEND INSULATOR	TOP	MIDDLE	BOTTOM
UPPER BOLT 'A' LENGTH (INCHES)	24.2	25.7	27.2
LOWER BOLT 'B' LENGTH (INCHES)	22.6	24.1	25.6

POST INSULATOR	TOP	MIDDLE	BOTTOM
UPPER BOLT 'C' LENGTH (INCHES)	27.0	28.5	30.1
LOWER BOLT 'D' LENGTH (INCHES)	27.5	29.0	30.5

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD8SSA3 PLATES

ISDD8SSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI 007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	3	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	6	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
69	SOCEY 003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

ISDD8SSA3*556S

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 005	3	CUSHION GRIP SUSPENSION CLAMP FOR 556 ACSR
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 003	3	ALUM. SLEEVE JUMPER FOR 556 ACSR, COMPRESSION SPLICE, NON-TENSION ONLY

ISDD8SSA3*954A

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 006	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 AAC
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 006	3	ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY

ISDD8SSA3*954S

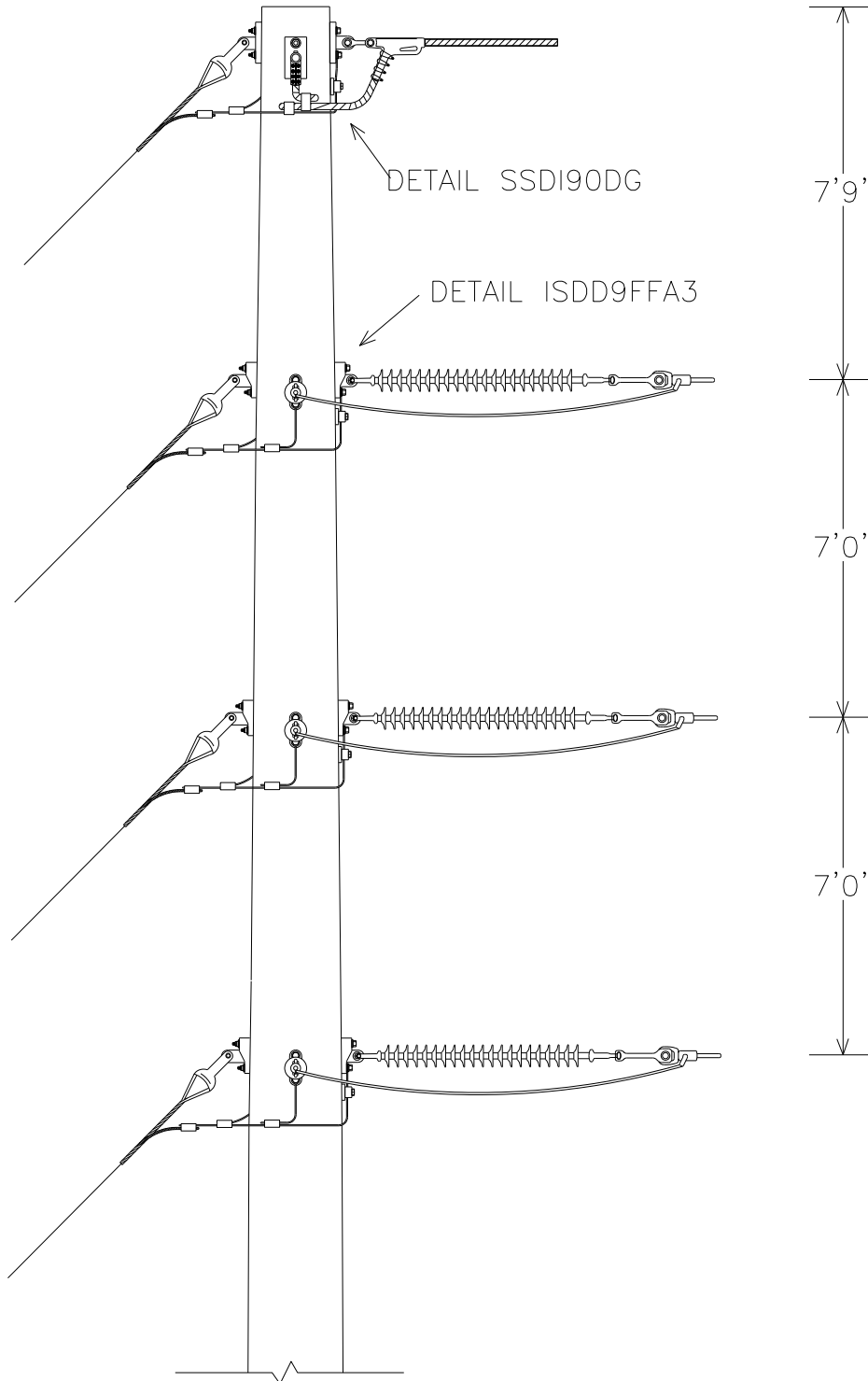
NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 005	3	ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY

ISDD8SSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
21	CLAQD 006	6	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
68	SLEAJ 007	3	ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY

A1244C

69KV, DOUBLE DEADEND 90°, FULL TENSION TO FULL TENSION, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S, 1590



A1244C PLATES

A1244C BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	6	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	2	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 016	7	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	33 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	16	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

A1244C*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 004	6	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 003	6	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSDE 004	6	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-3/5
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

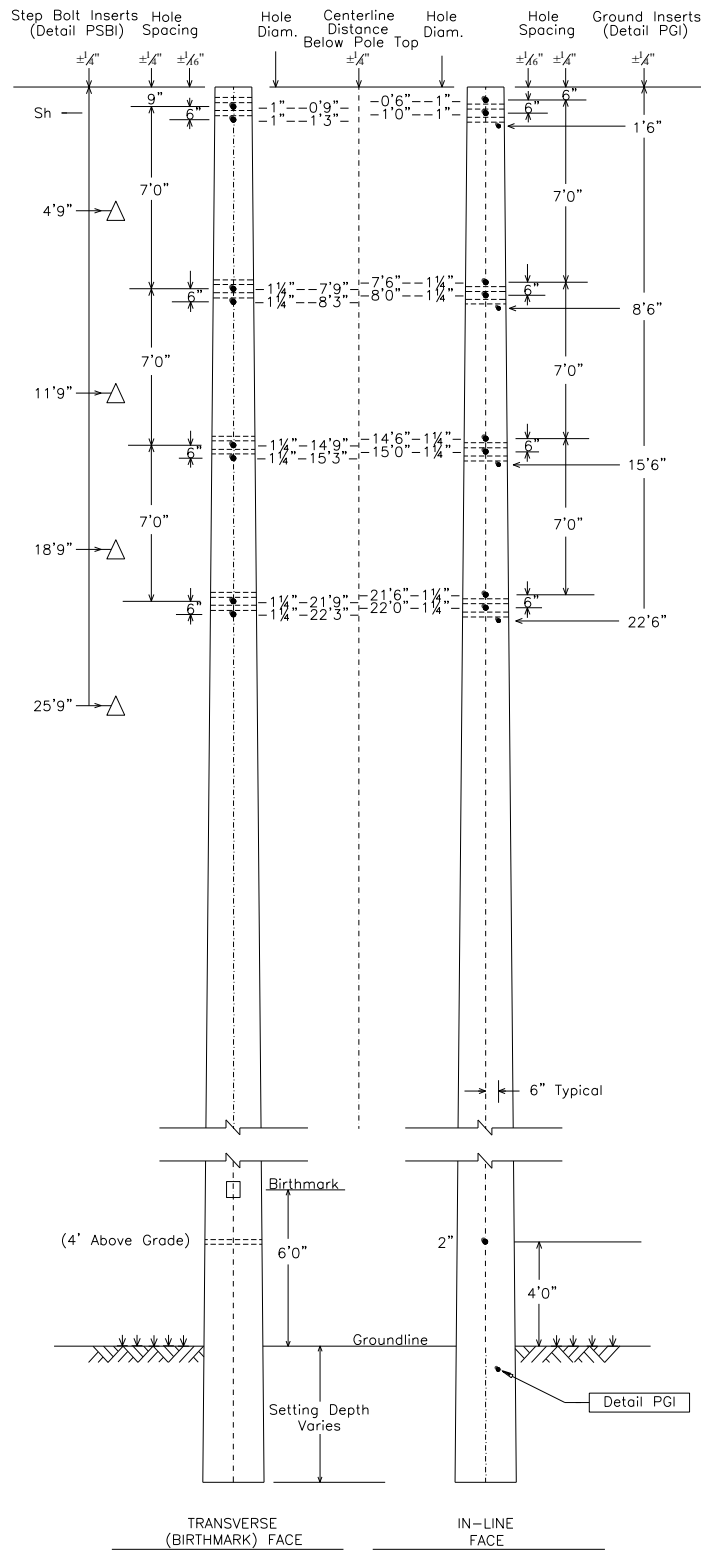
A1244C*954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 005	6	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1244C*1590

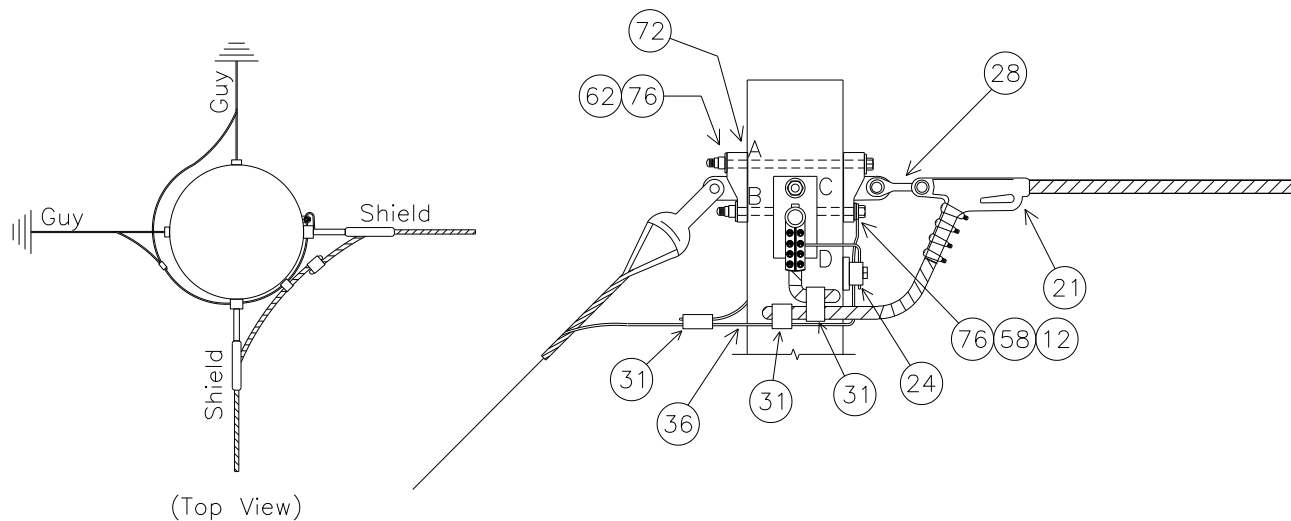
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	2	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	8	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	2	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 007	6	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 003	6	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	12	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	24	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1244C DRILLING DETAIL



SSDI90DG

SHIELD FOR SPUN CONCRETE POLES
DOUBLE IN-LINE 90°, DOUBLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	22.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	22.6
MINIMUM REQUIRED BOLT LENGTH 'D' (INCHES)	21.0

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

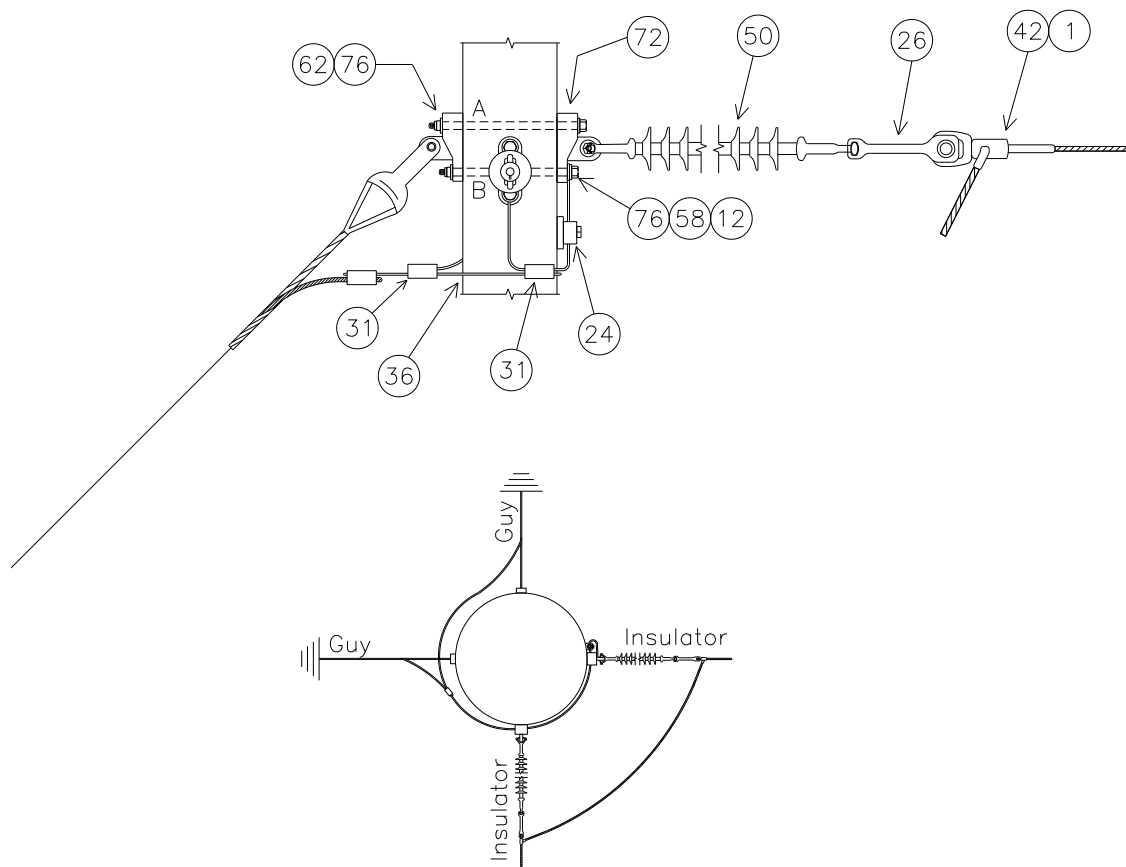
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	2	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 016	1	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER, FOR CU CONNECTIONS ONLY
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	4	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISDD9FFA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, FULL TENSION TO FULL TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954S, 1590



(Top View)

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	UPPER TEE			LOWER TEE		
	Top	Mid	Bottom	Top	Mid	Bottom
UPPER BOLT (A) LENGTH (INCHES)	24.3	25.8	27.3	24.4	25.9	27.4
LOWER BOLT (B) LENGTH (INCHES)	22.7	24.2	25.7	22.7	24.2	25.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD9FFA3 PLATES

ISDD9FFA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	6	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
31	CNNCP 016	6	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	27 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
72	TEEDE 003	12	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#

ISDD9FFA3*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 004	6	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8", H.D.G.
42	DEACB 003	6	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSSU008	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-3/5
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD9FFA3*954S

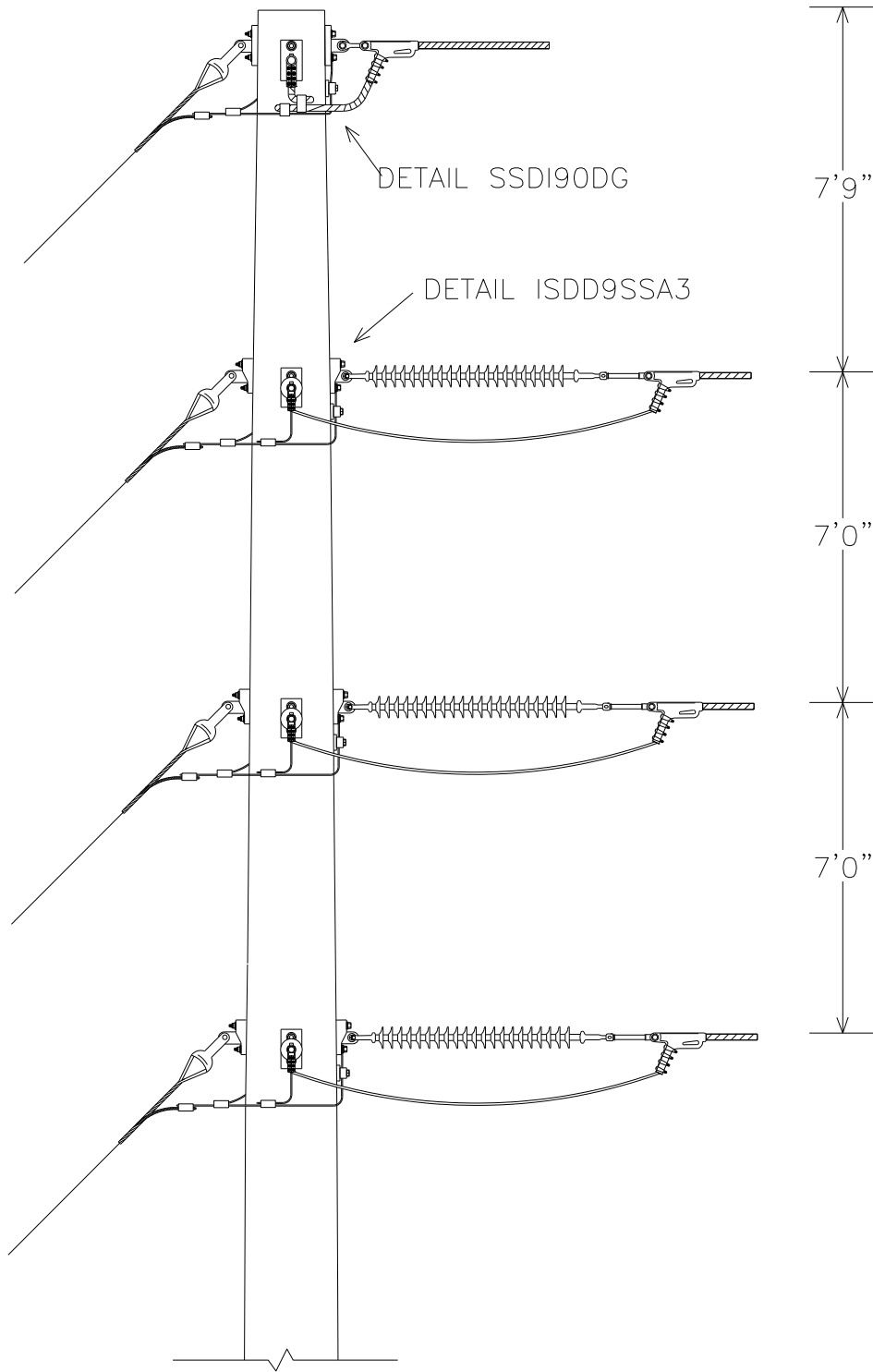
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 005	6	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD9FFA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	2	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	8	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	2	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	6	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 007	6	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 003	6	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	12	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	24	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1244Q

69KV, DOUBLE DEADEND 90°, SLACK TENSION TO SLACK TENSION, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A1244Q PLATES

A1244Q BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	2	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	6	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 016	7	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	24 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	16	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1244Q*556S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 003	3	ALUM. SLEEVE JUMPER FOR 556 ACSR, COMPRESSION SPLICE, NON-TENSION ONLY

A1244Q*954A

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 006	3	ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY

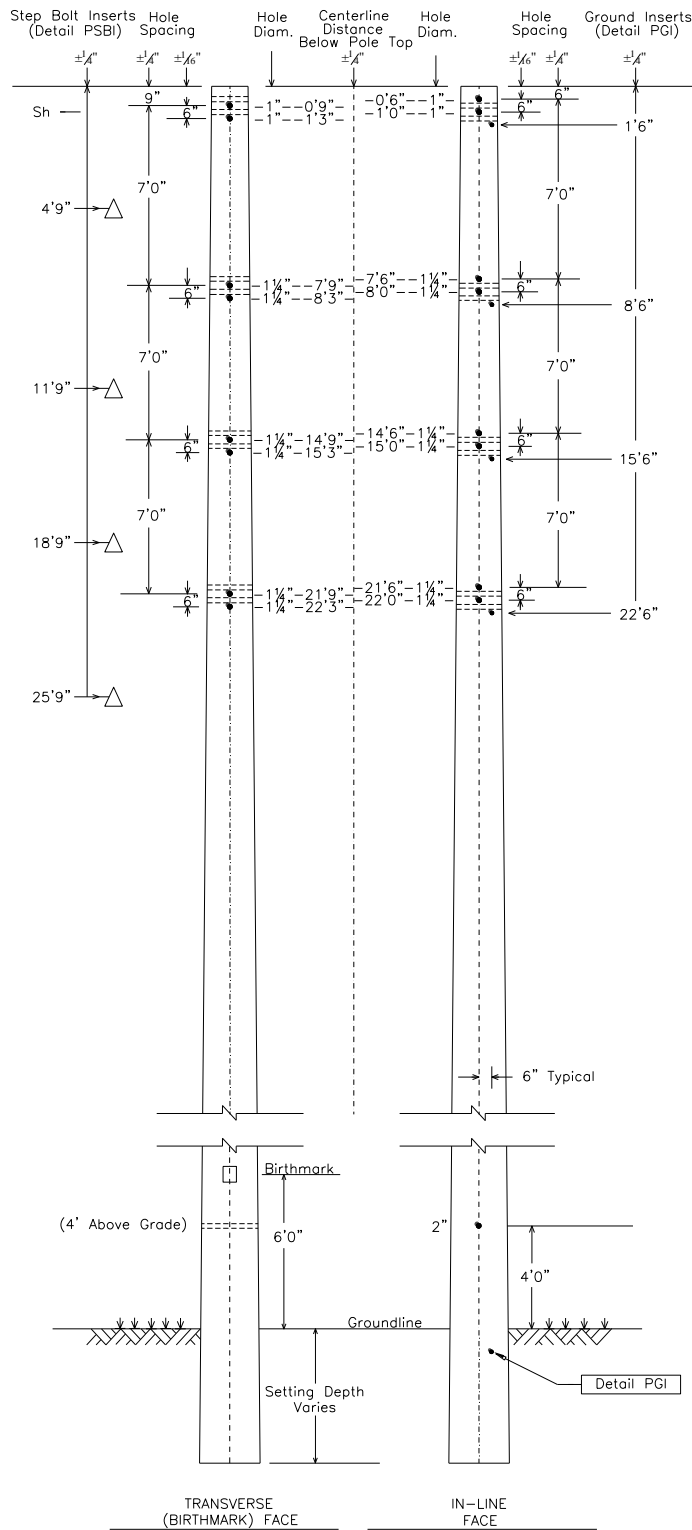
A1244Q*954S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 005	3	ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY

A1244Q*1590

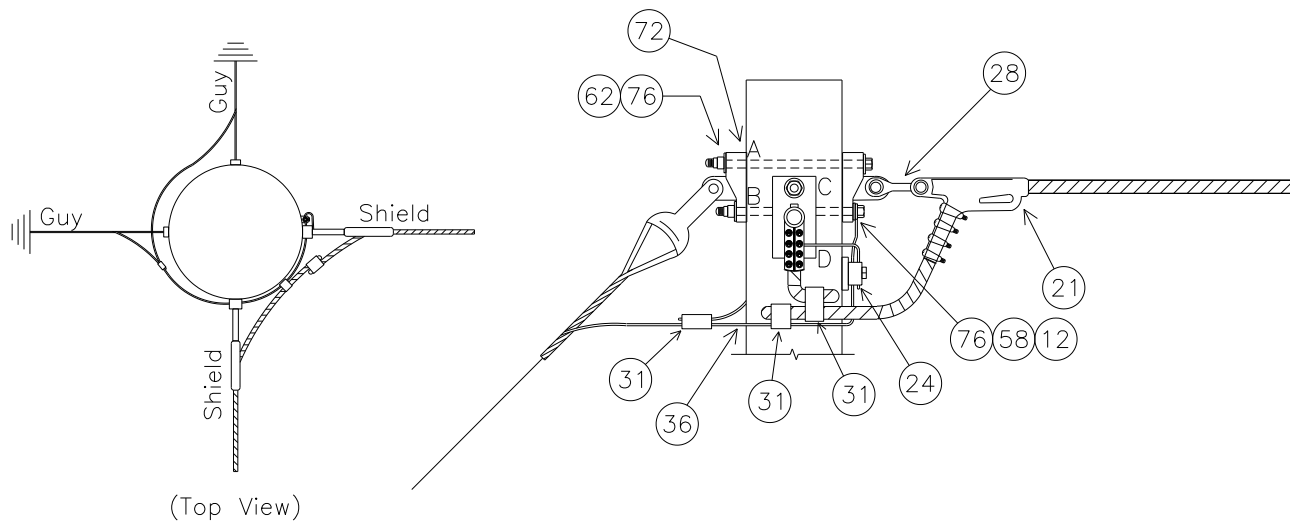
NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	6	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
68	SLEAJ 007	3	ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY

A1244Q DRILLING DETAIL



SSDI90DG

SHIELD FOR SPUN CONCRETE POLES
DOUBLE IN-LINE 90°, DOUBLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	22.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	22.6
MINIMUM REQUIRED BOLT LENGTH 'D' (INCHES)	21.0

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

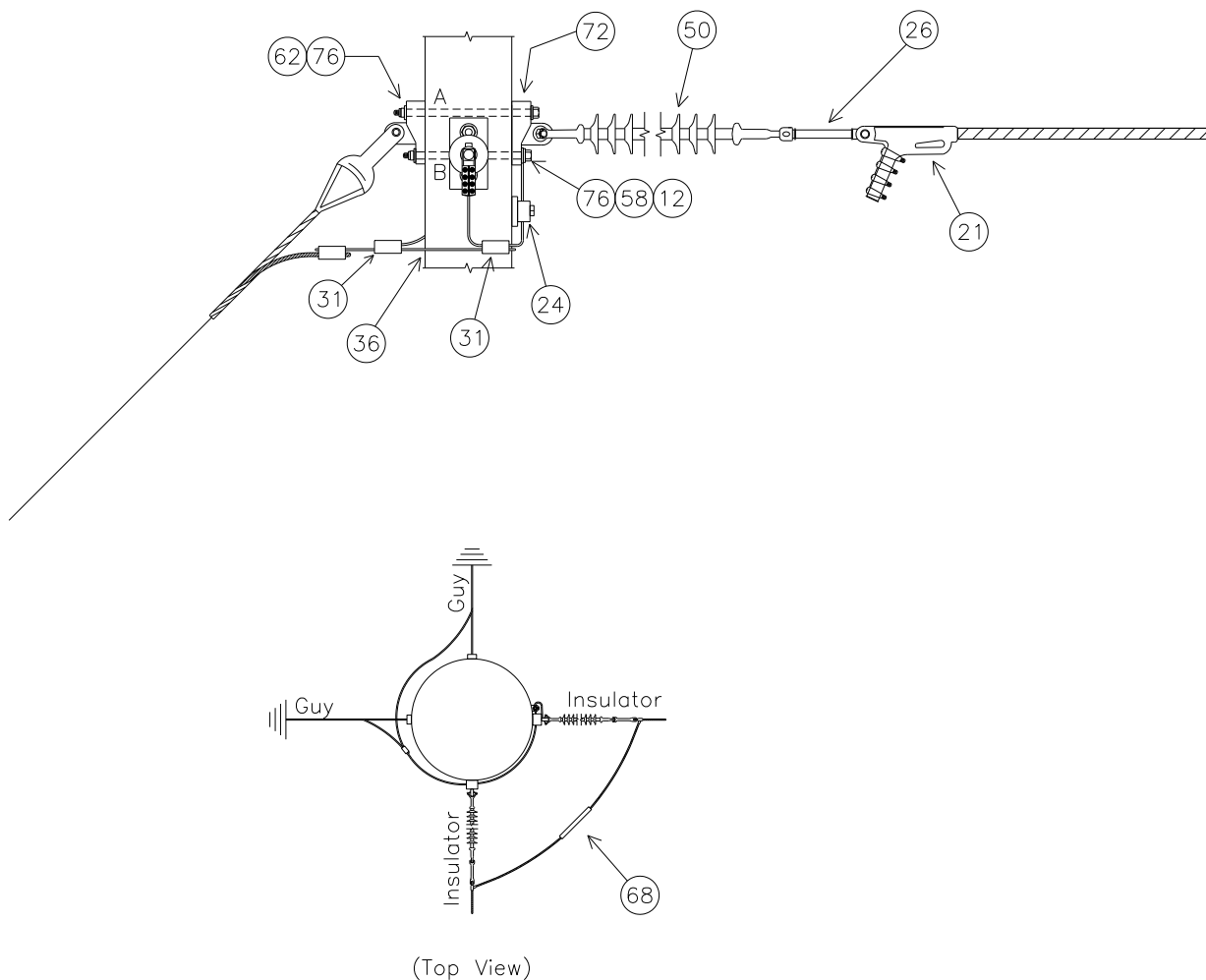
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	2	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 016	1	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER, FOR CU CONNECTIONS ONLY
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	4	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISDD9SSA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, SLACK TENSION TO SLACK TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	UPPER TEE			LOWER TEE		
	Top	Mid	Bottom	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.2	25.7	27.2	24.3	25.8	27.3
LOWER BOLT 'B' LENGTH (INCHES)	22.6	24.1	25.6	22.7	24.2	25.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD9SSA3 PLATES

ISDD9SSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	8	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	6	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
31	CNNCP 016	6	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	18 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	12	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD9SSA3*556S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 – 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 003	3	ALUM. SLEEVE JUMPER FOR 556 ACSR, COMPRESSION SPLICE, NON-TENSION ONLY

ISDD9SSA3*954A

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 – 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 006	3	ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY

ISDD9SSA3*954S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	6	DEADEND CLAMP (.7 – 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
68	SLEAJ 005	3	ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY

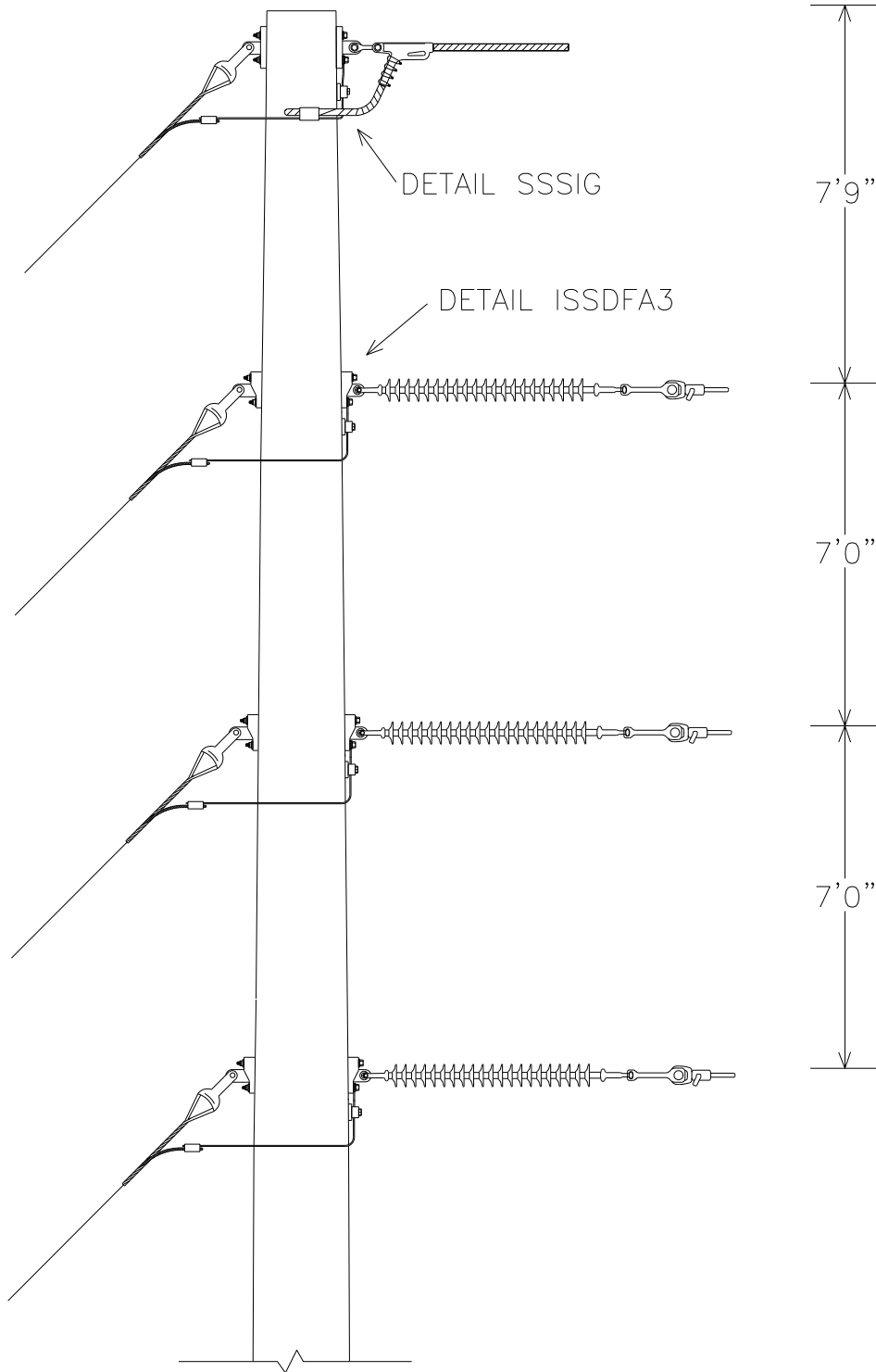
ISDD9SSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	6	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
68	SLEAJ 007	3	ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY

A1245C

69KV, SINGLE DEADEND, FULL TENSION, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954S, 1590



A1245C PLATES

A1245C BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	1	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
36	COBCO 028	16 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

A1245C*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 004	3	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 003	3	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSSU008	3	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-3/5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

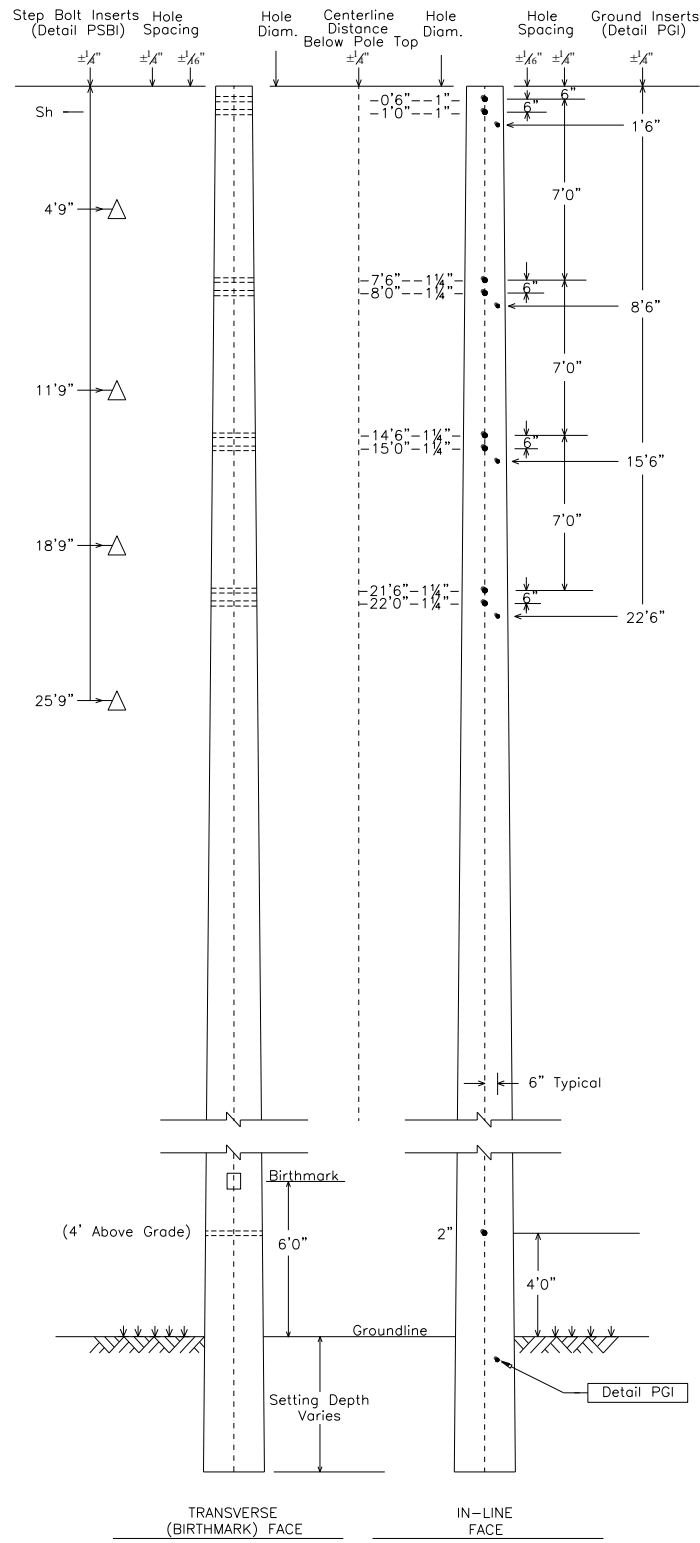
A1245C*954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1245C*1590

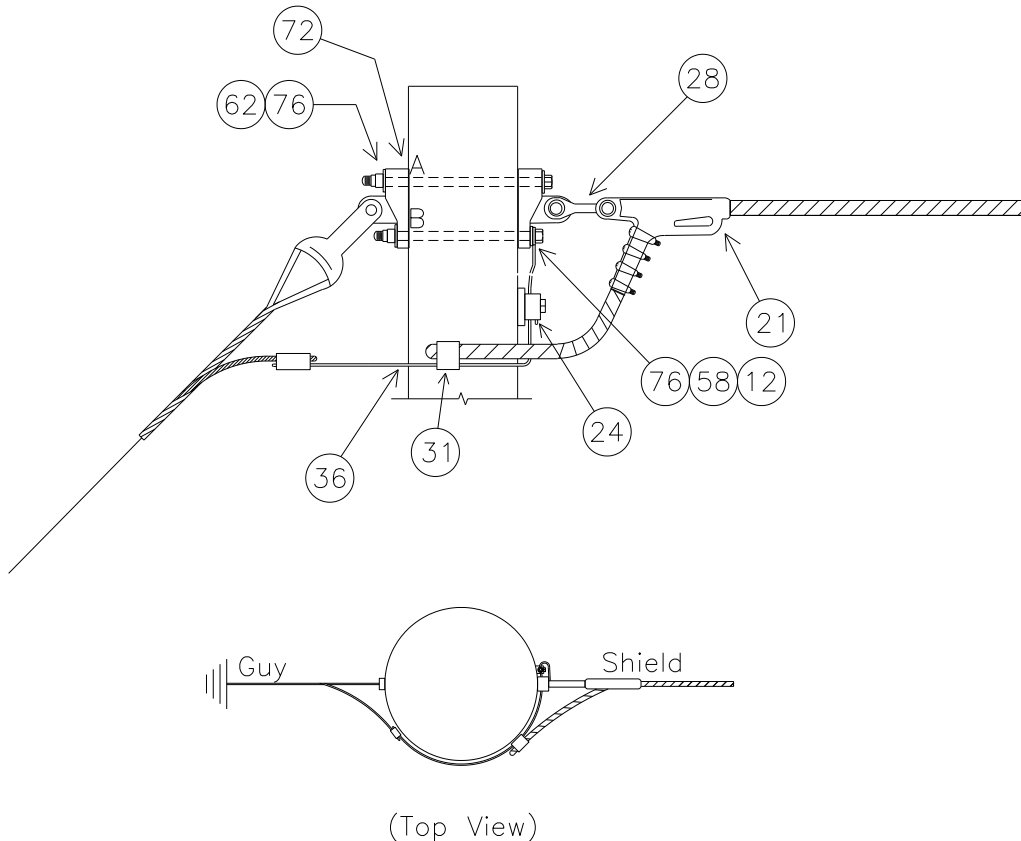
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1245C DRILLING DETAIL



SSSIG

SHIELD FOR SPUN CONCRETE POLES
SINGLE IN-LINE, GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

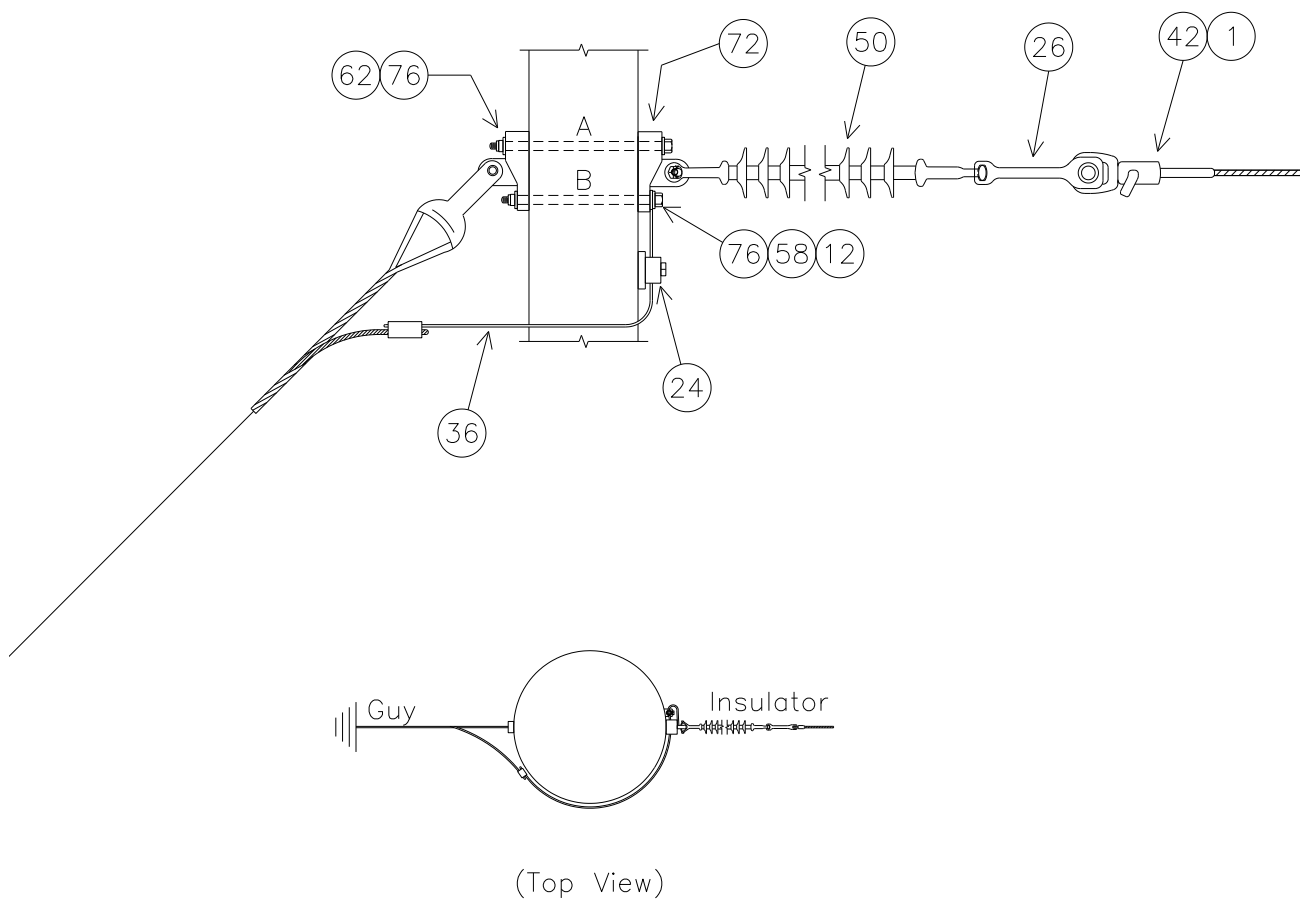
BOLT LENGTH 'A' (INCHES)	22.6
BOLT LENGTH 'B' (INCHES)	20.9

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	1	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
36	COBCO 028	4 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISSDFA3

INSULATOR FOR SPUN CONCRETE POLES
SINGLE DEAD-END, FULL TENSION, 69KV, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
LOWER BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSDFA3 PLATES

ISSDFA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#

ISSDFA3*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 004	3	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8", H.D.G.
42	DEACB 003	3	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSSU 008	3	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-3/5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISSDFA3*954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

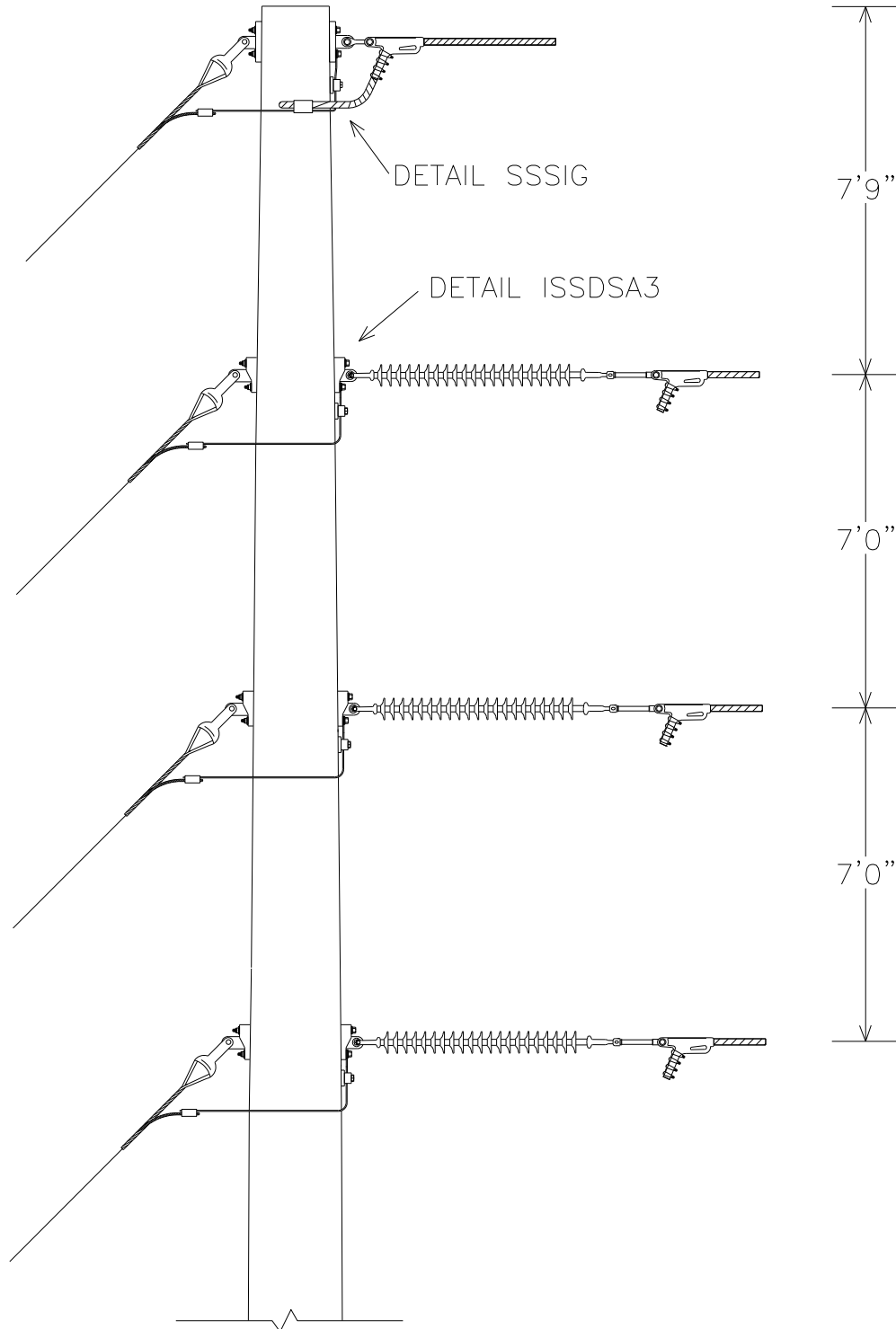
ISSDFA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1245Q

69KV, SINGLE DEADEND, SLACK TENSION, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A1245Q PLATES

A1245Q BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	1	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
36	COBCO 028	16 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

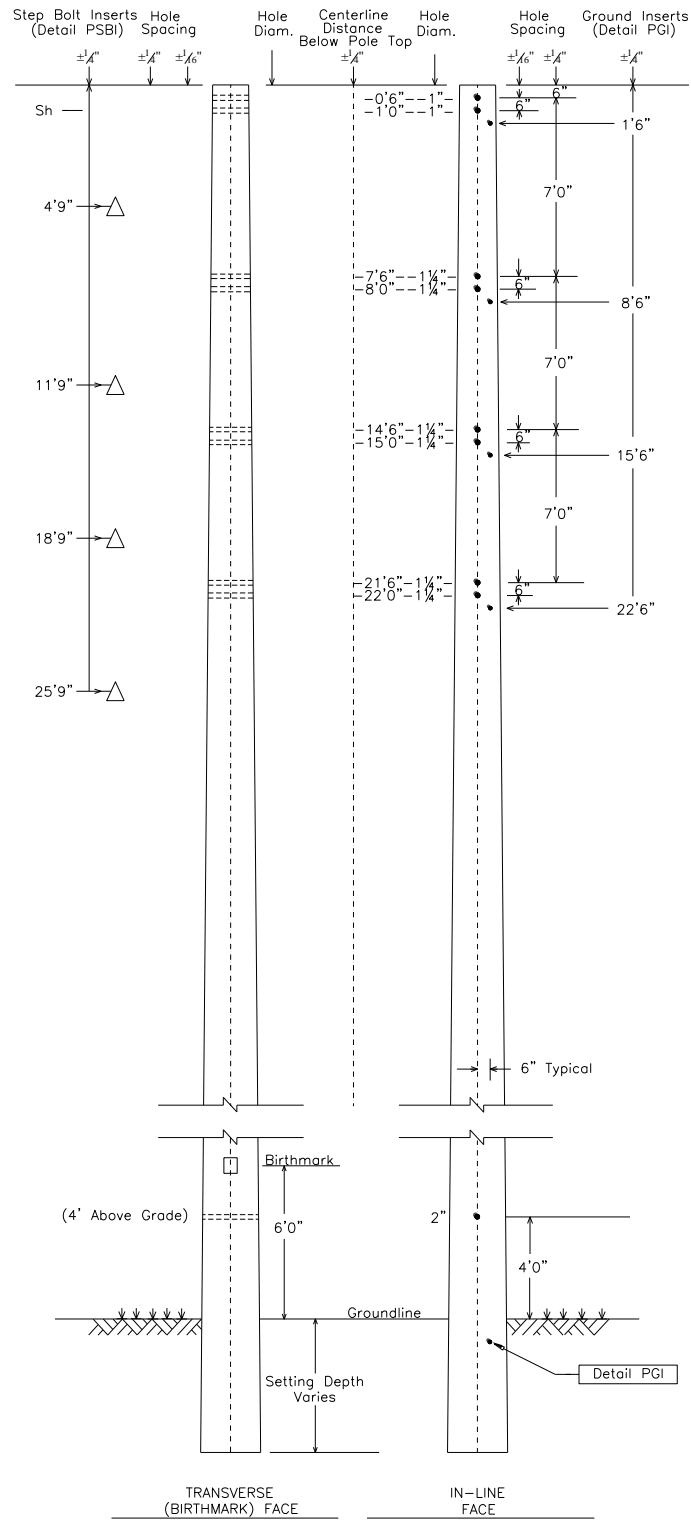
A1245Q*556S, 954A, 954S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"

A1245Q*1590

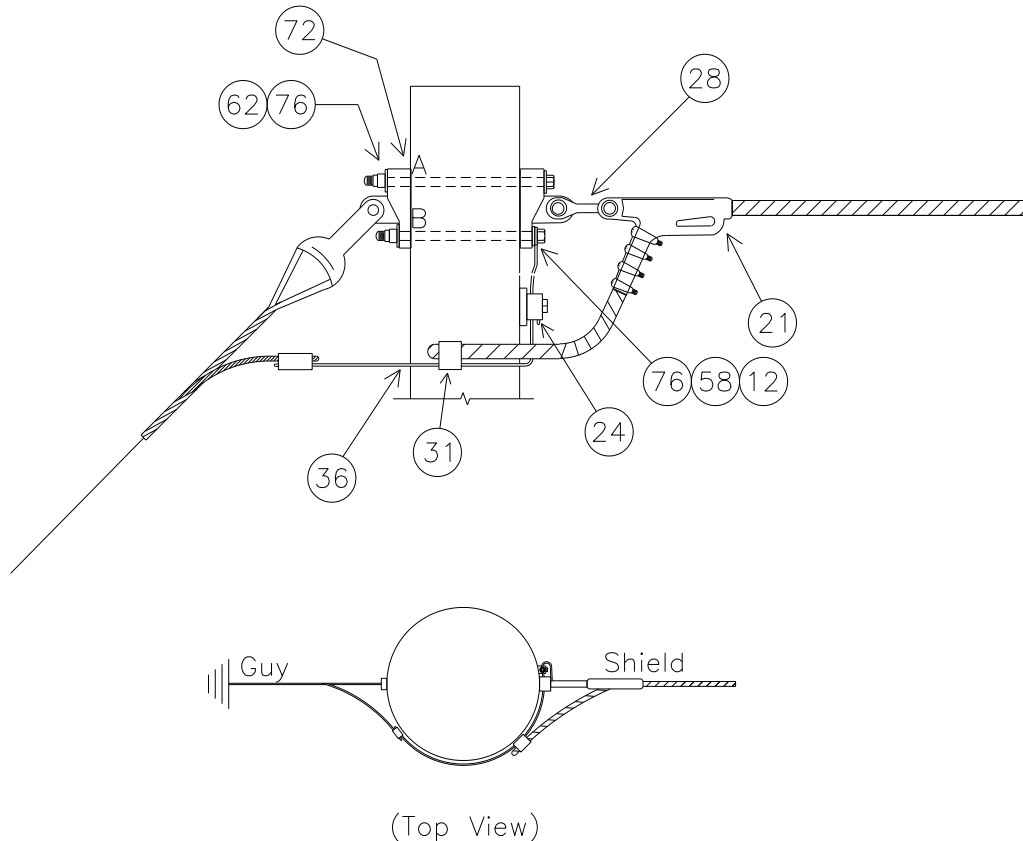
NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"

A1245Q DRILLING DETAIL



SSSIG

SHIELD FOR SPUN CONCRETE POLES
SINGLE IN-LINE, GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

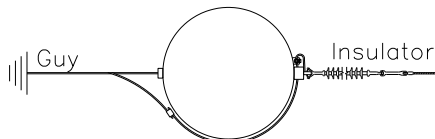
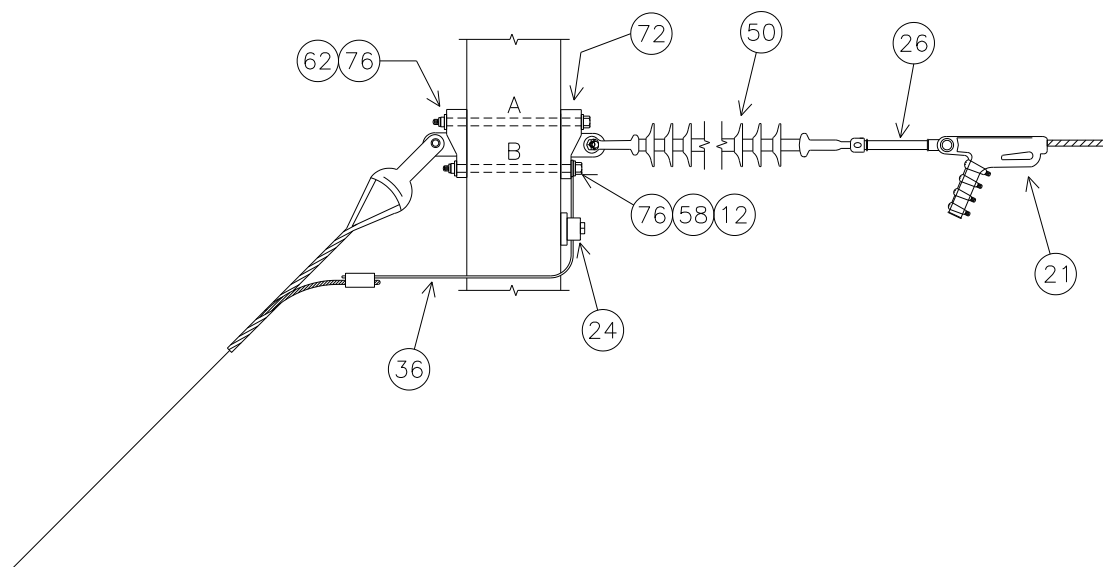
BOLT LENGTH 'A' (INCHES)	22.6
BOLT LENGTH 'B' (INCHES)	20.9

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	1	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
36	COBCO 028	4 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISSDSA3

INSULATOR FOR SPUN CONCRETE POLES
SINGLE DEAD-END SLACK TENSION, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



(Top View)

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.2	25.7	27.2
LOWER BOLT 'B' LENGTH (INCHES)	22.6	24.1	25.6

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSDSA3 PLATES

ISSDSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISSDSA3*556S, 954A, 954S

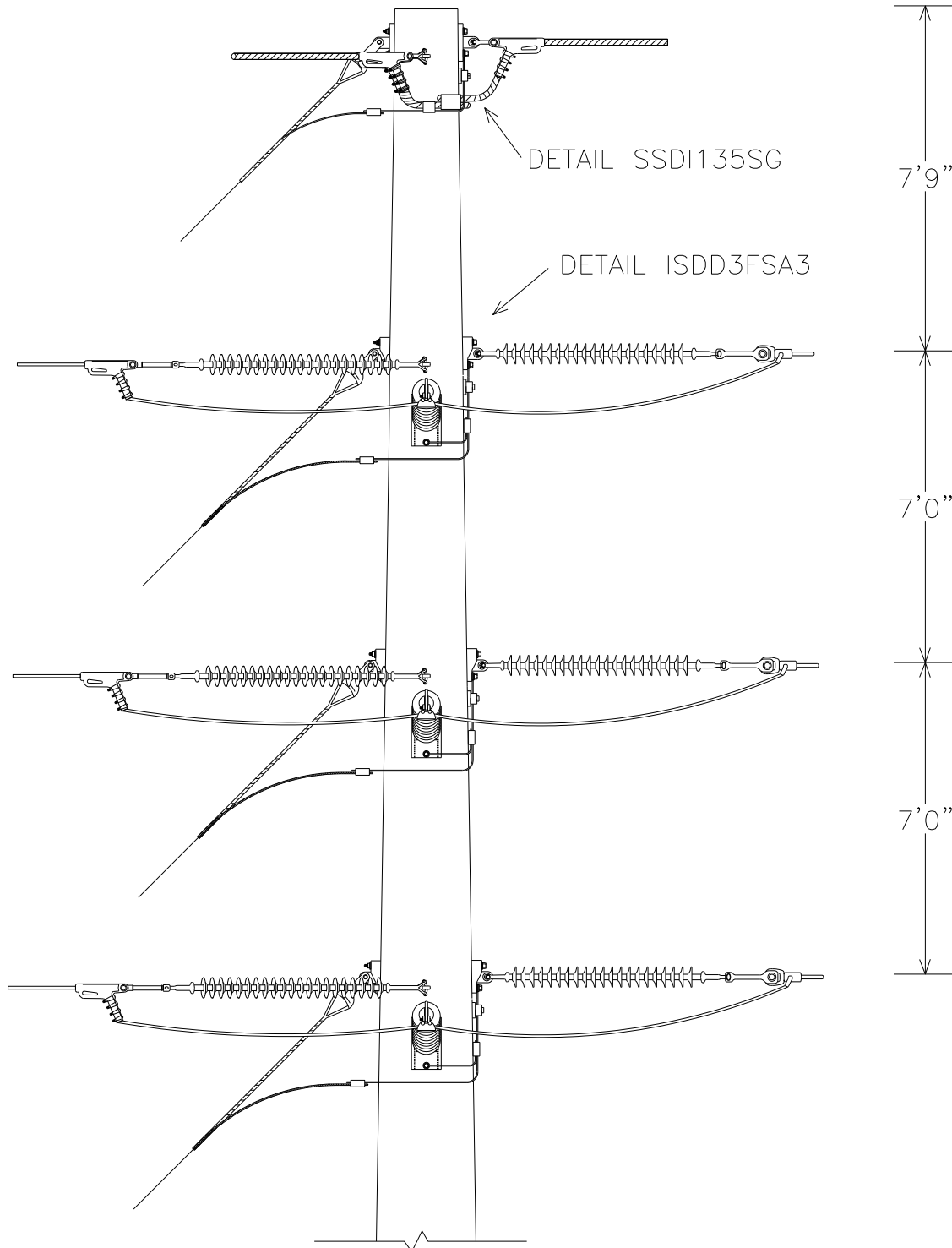
NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 – 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"

ISSDSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"

A12462

69KV, DOUBLE DEADEND 135°, FULL TENSION TO SLACK TENSION, 3-PHASE
CONDUCTOR OPTIONS: 954S, 1590





Overhead Transmission Standards

A12462 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
7	BALFI 007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 021	2	BOLT, SHOULDER EYE, 7/8" X 22", GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 022	1	BOLT, SHOULDER EYE, 7/8" X 24", GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 023	1	BOLT, SHOULDER EYE, 7/8" X 26", GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 001	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90-DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 016	3	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	24 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
51	INSHP 020	3	HORIZONTAL POST SILICONE INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	10	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
69	SOCEY 003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	16	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	14	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"

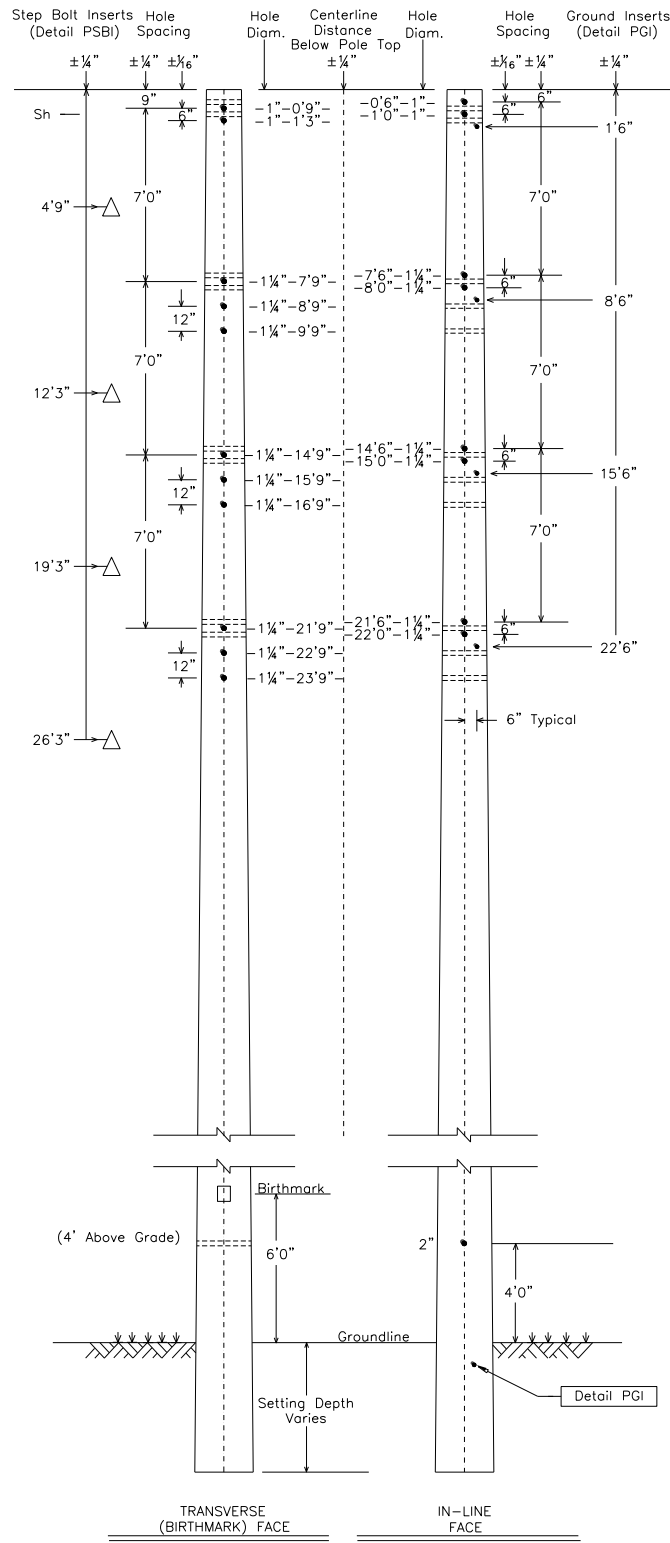
A12462*954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A12462*1590

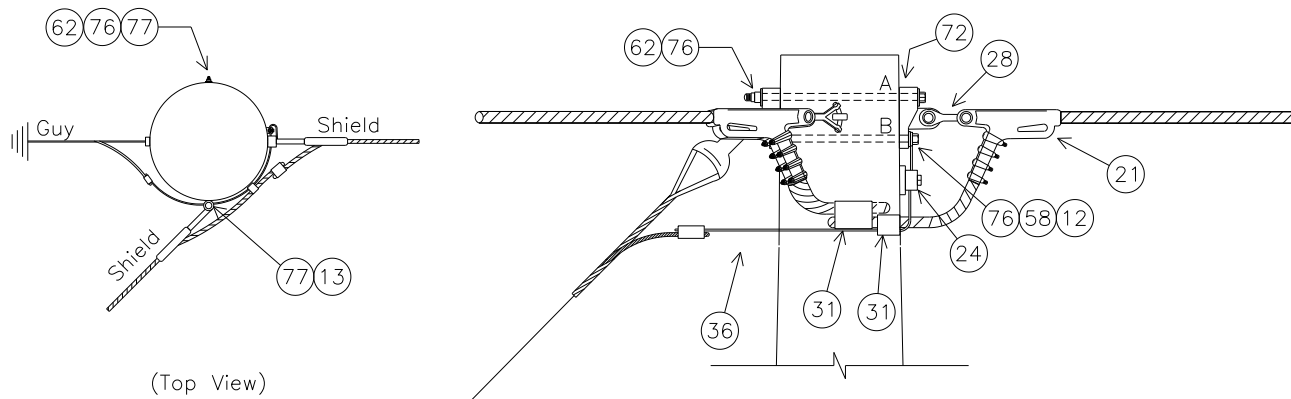
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A12462 DRILLING DETAIL



SSDI135SG

SHIELD FOR SPUN CONCRETE POLES
DOUBLE IN-LINE 135°, SINGLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	22.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED SHOULDER EYE BOLT LENGTH (INCHES)	20.1

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

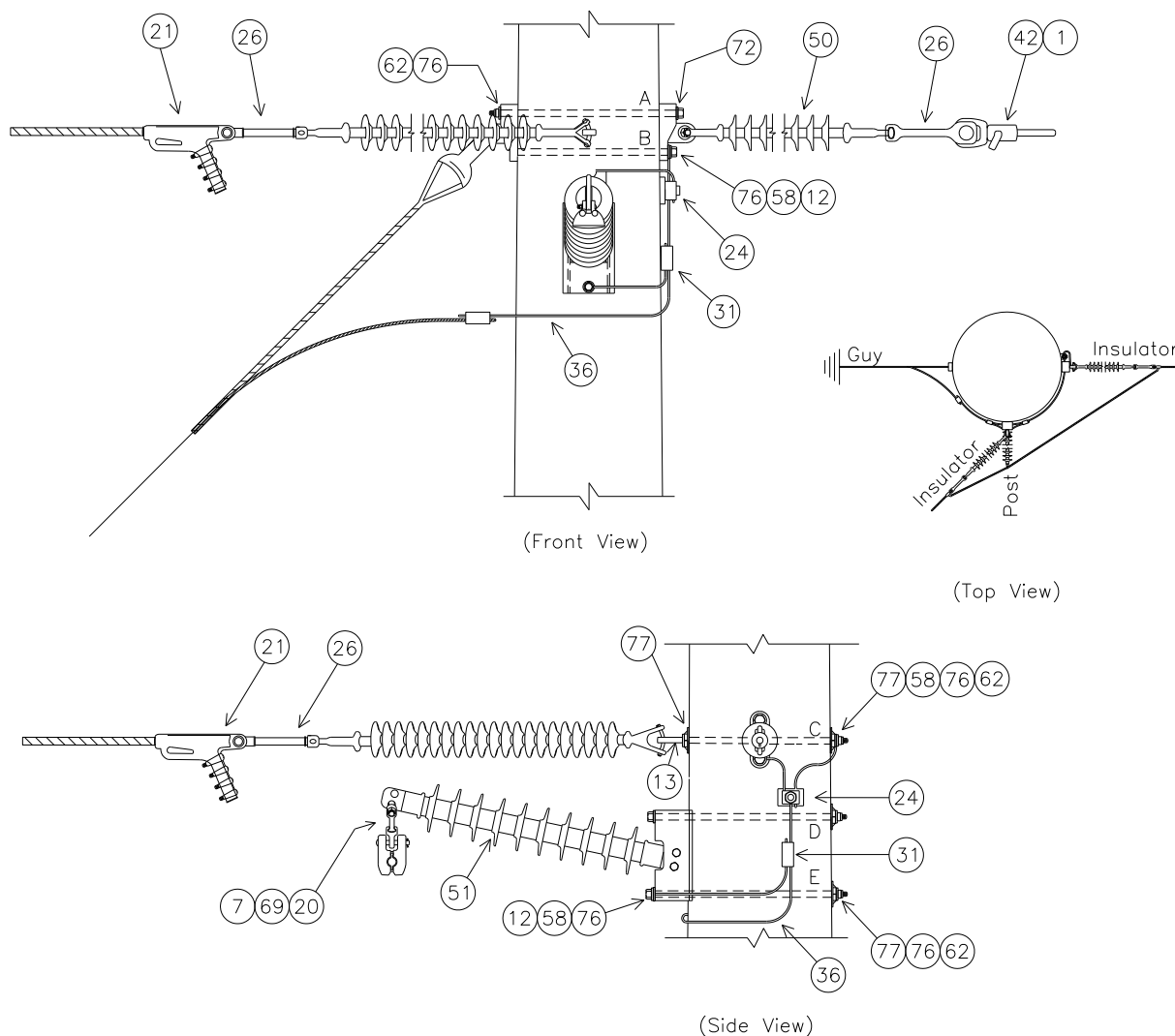
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 021	1	BOLT, SHOULDER EYE, 7/8" X 22", GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 001	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
28	CLETE 004	1	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
62	NUTSL 005	1	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	1	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"

ISDD3FSA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEADEND 135°, FULL TENSION TO SLACK TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

	SECTION		
	TOP	MIDDLE	BOTTOM
BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7
SHOULDER EYEBOLT 'C' LENGTH (INCHES)	21.6	23.1	24.6
BOLT 'D' LENGTH (INCHES)	27.2	28.8	30.3
BOLT 'E' LENGTH (INCHES)	27.7	29.2	30.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD3FSA3 PLATES

ISDD3FSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
7	BALF007	3	BALL Y-CLEVIS, CLASS 52-3/5
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 021	1	BOLT, SHOULDER EYE, 7/8" X 22", GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 022	1	BOLT, SHOULDER EYE, 7/8" X 24", GALVANIZED, WITH SQUARE NUT ATTACHED
13	BOLSE 023	1	BOLT, SHOULDER EYE, 7/8" X 26", GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
31	CNNCP 016	3	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	21 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
51	INSHP 020	3	HORIZONTAL POST SILICONE INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	6	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION
62	NUTSL 005	9	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
69	SOCEY003	3	SOCKET EYE, CLASS 52-3/5
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	15	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	12	FLAT CURVED WASHER FOR 3/4" & 7/8" BOLT, 4" SQ X 1/4", GALVANIZED

ISDD3FSA3*954S

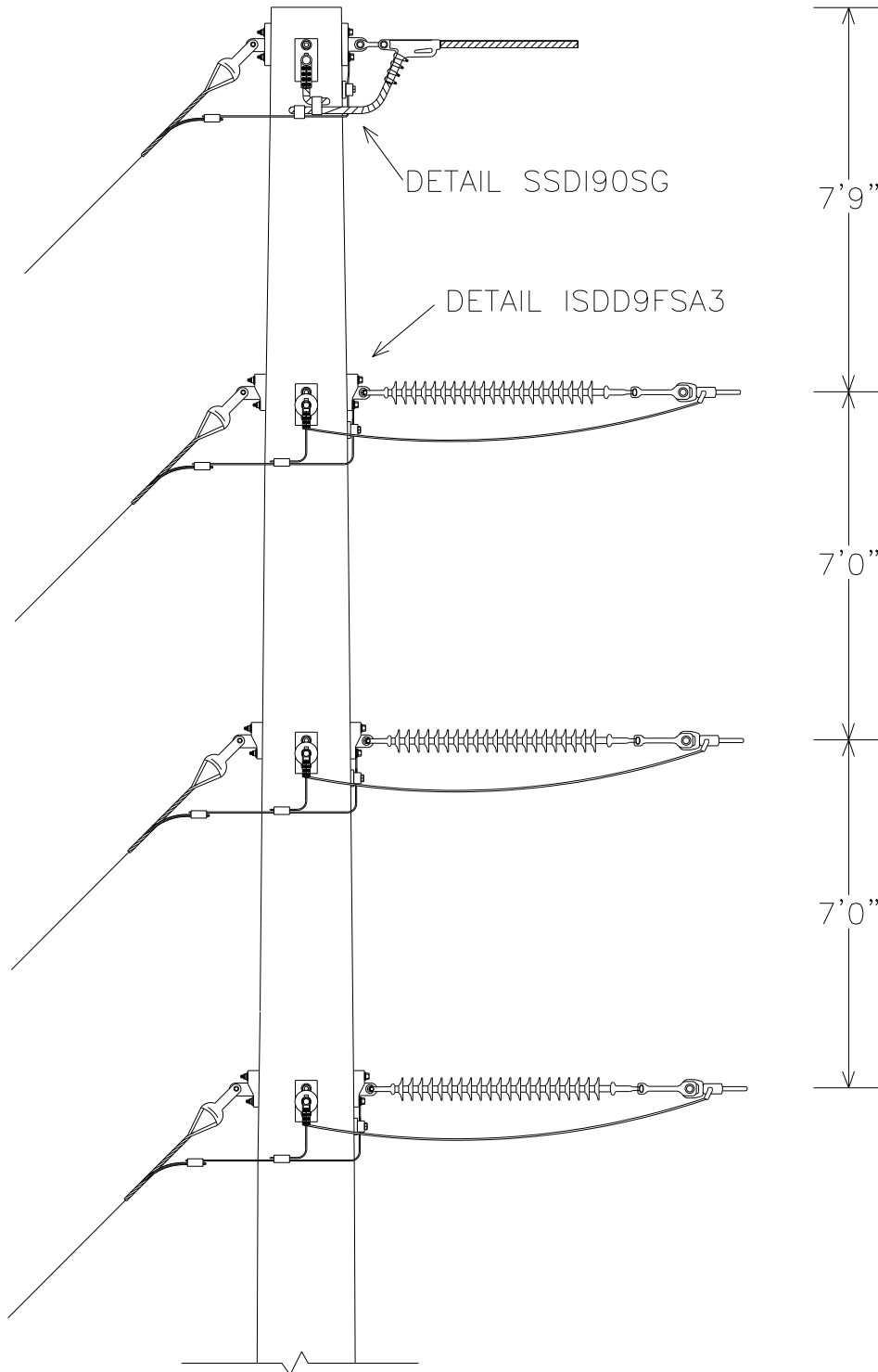
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 007	3	CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD3FSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
20	CLAJU 008	3	CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1246C

69KV, DOUBLE DEADEND 90°, FULL TENSION TO SLACK TENSION, 3-PHASE
CONDUCTOR OPTIONS: 954S, 1590



A1246C PLATES

A1246C BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
12	BOLMS 040	3	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	3	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 016	3	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	21 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	12	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

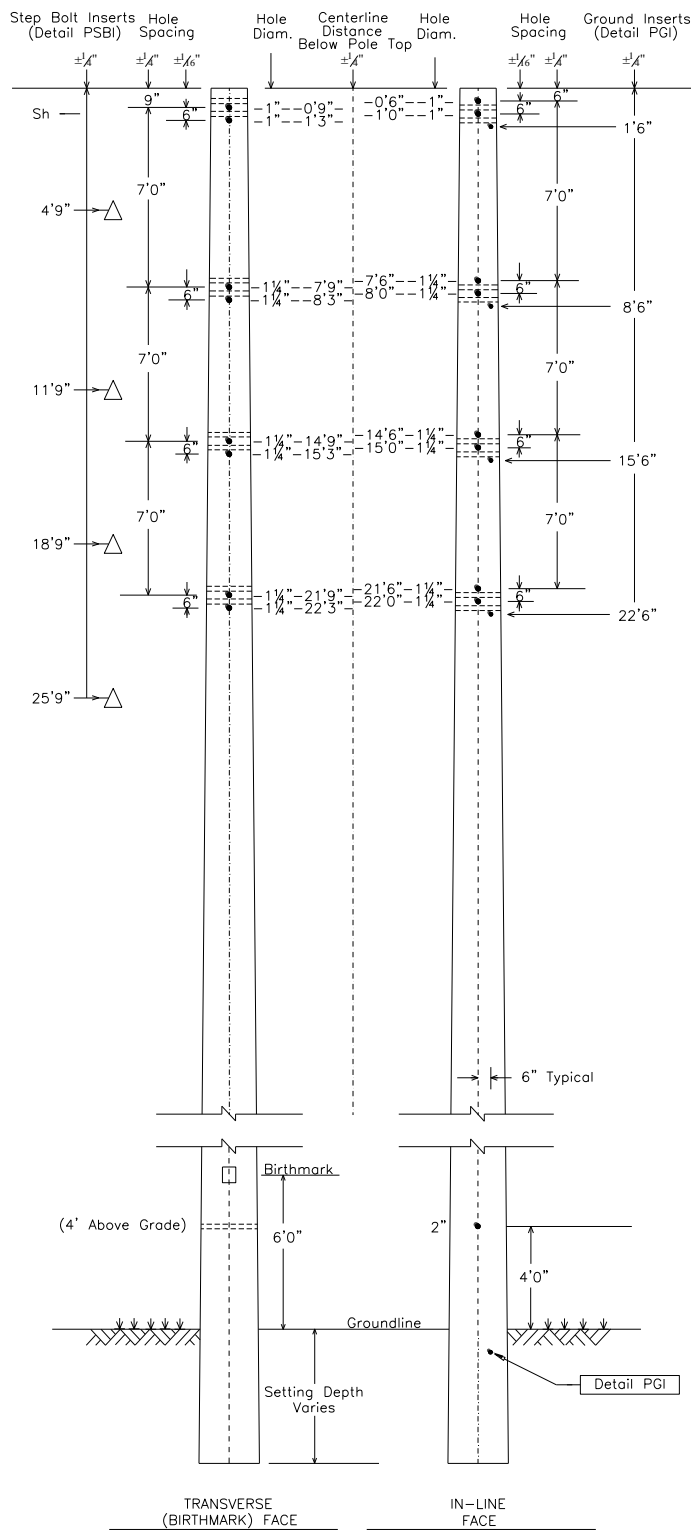
A1246C*954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1246C*1590

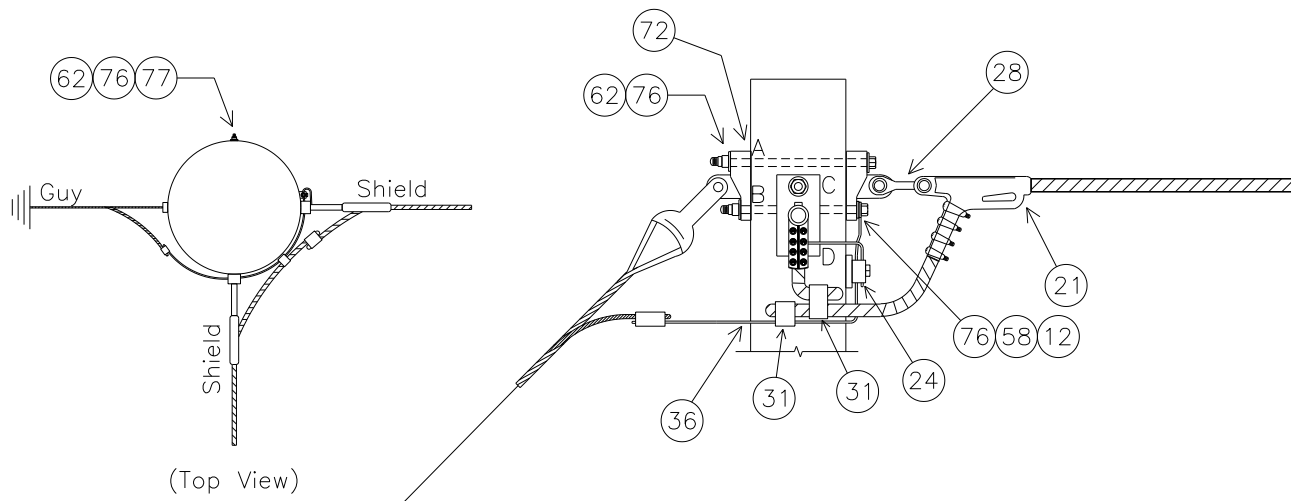
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1246C DRILLING DETAIL



SSDI90SG

SHIELD FOR SPUN CONCRETE POLES
DOUBLE IN-LINE 90°, SINGLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	DOUBLE TEE SIDE	SINGLE TEE SIDE
UPPER BOLT LENGTH (INCHES)	22.6	21.3
LOWER BOLT LENGTH (INCHES)	20.9	20.6

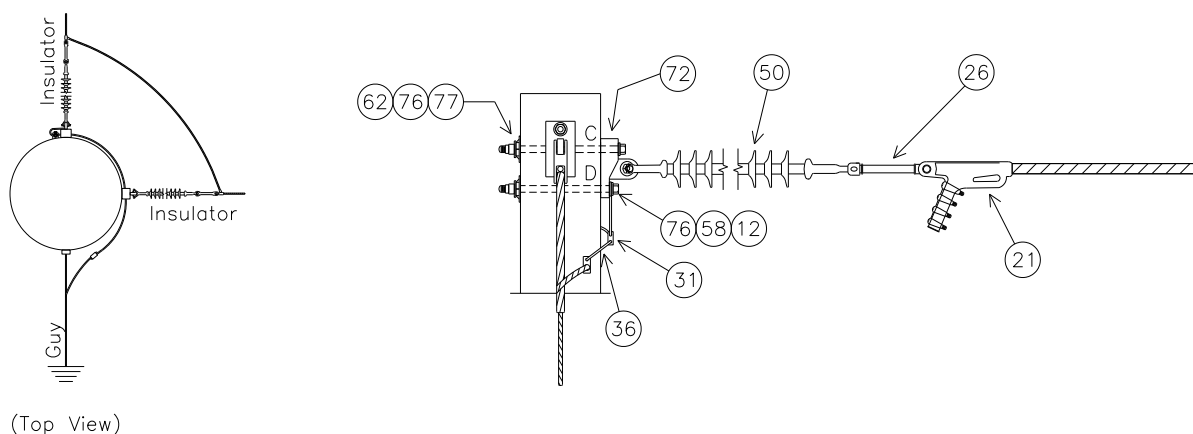
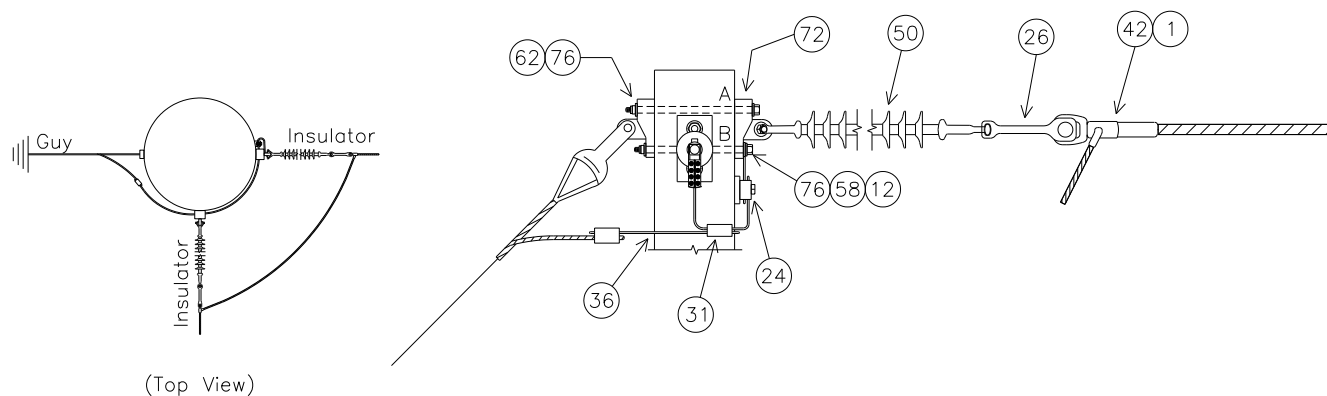
NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	3	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	2	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	3	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, GALVANIZED, 4" X 4"

ISDD9FSA3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, FULL TENSION TO SLACK TENSION, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 954S, 1590

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

FULL TENSION SIDES

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
LOWER BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7

SLACK TENSION SIDES

SUBSTRUCTURE	Top	Mid	Bottom
UPPER BOLT 'A' LENGTH (INCHES)	23.0	24.6	26.1
LOWER BOLT 'B' LENGTH (INCHES)	22.3	23.8	25.3

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISDD9FSA3 PLATES

ISDD9FSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
12	BOLMS 053	3	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
31	CNNCP 016	3	COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER
36	COBCO 028	18 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
50	INSDE 004	6	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	9	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"

ISDD9FSA3*954S

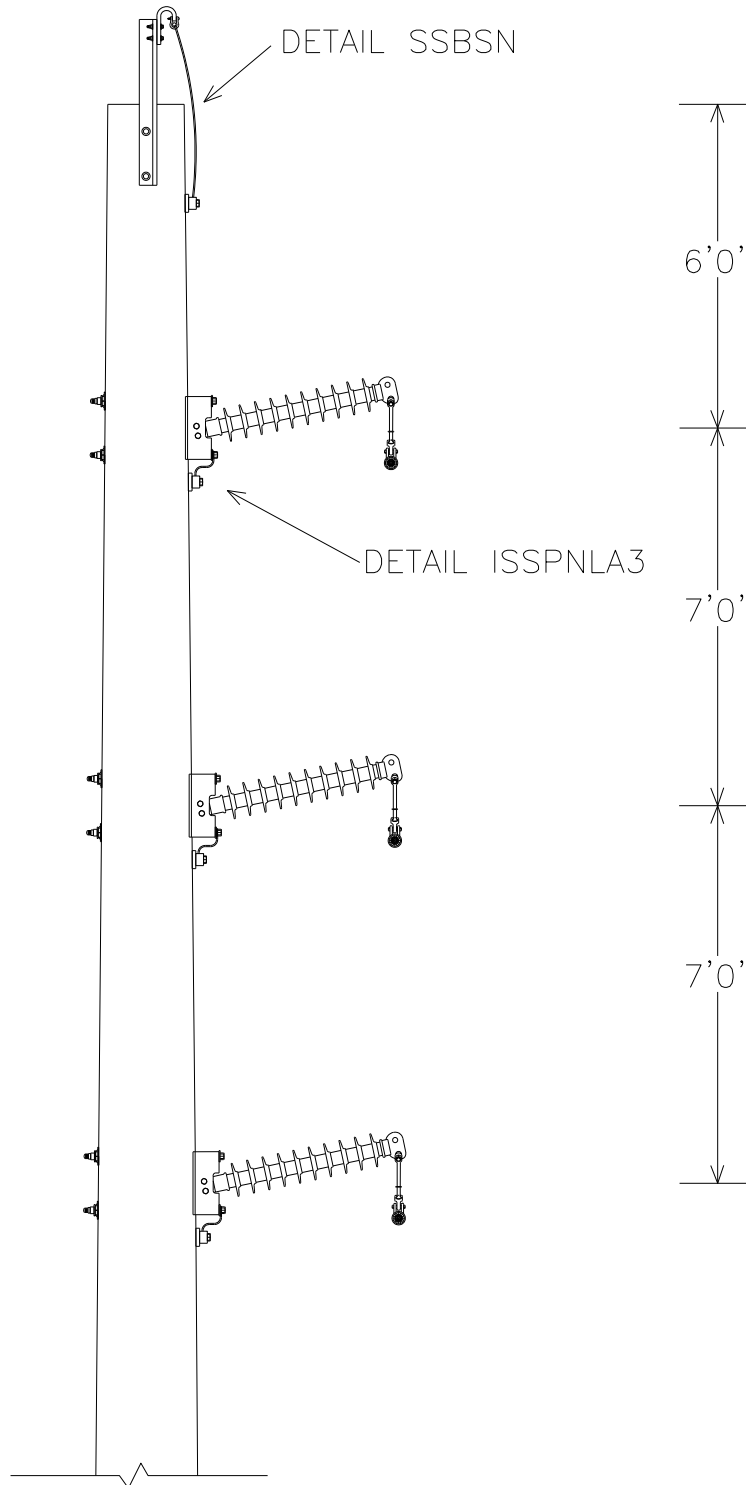
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED

ISDD9FSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED

A1251

69KV SINGLE POST, UNGUYED, TANGENT SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S



A1251 PLATES

A1251 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

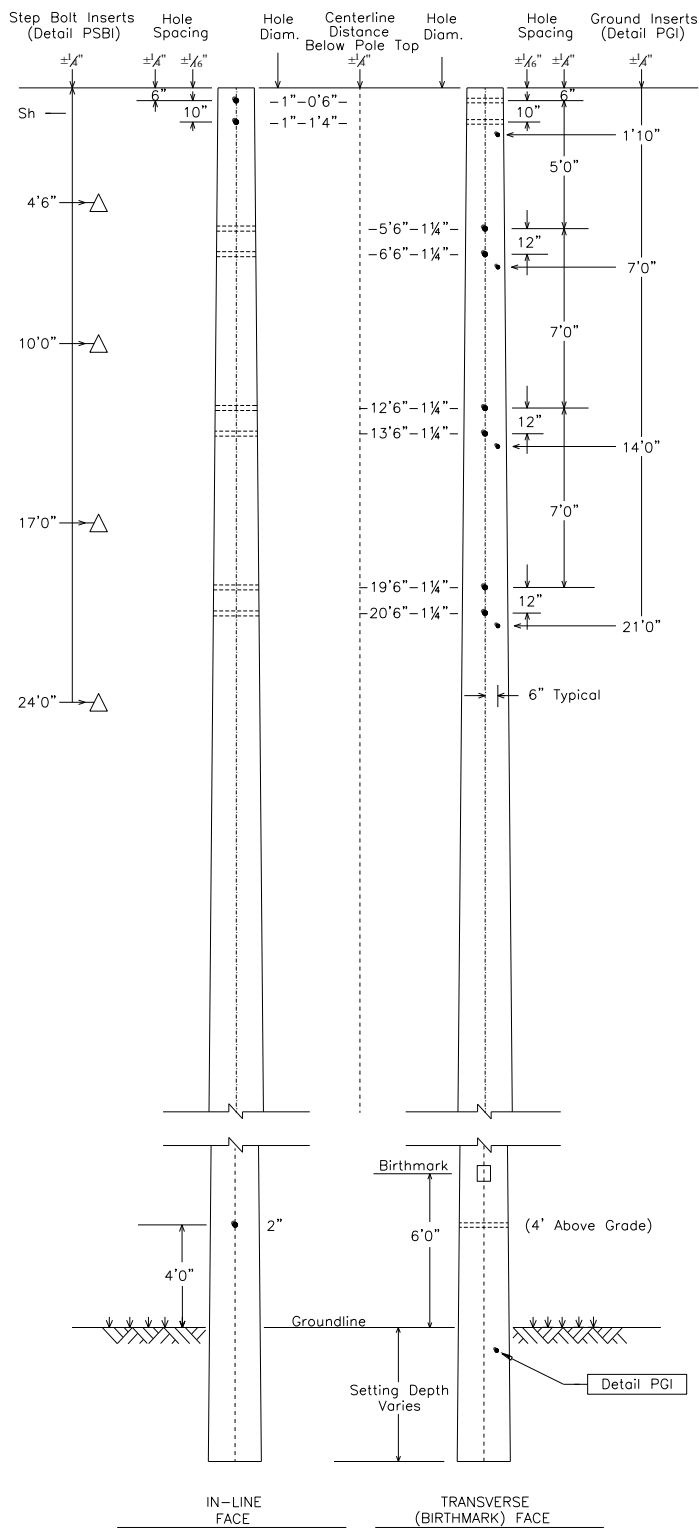
A1251*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1251*954S

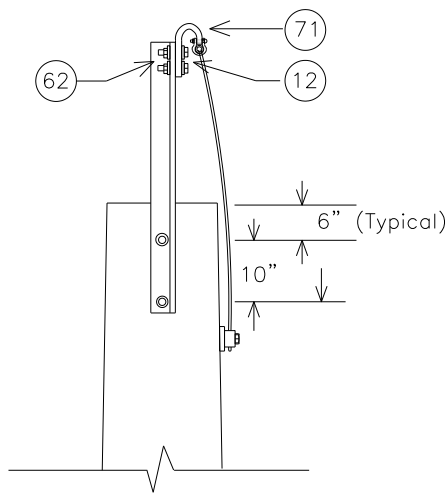
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1251 DRILLING DETAIL

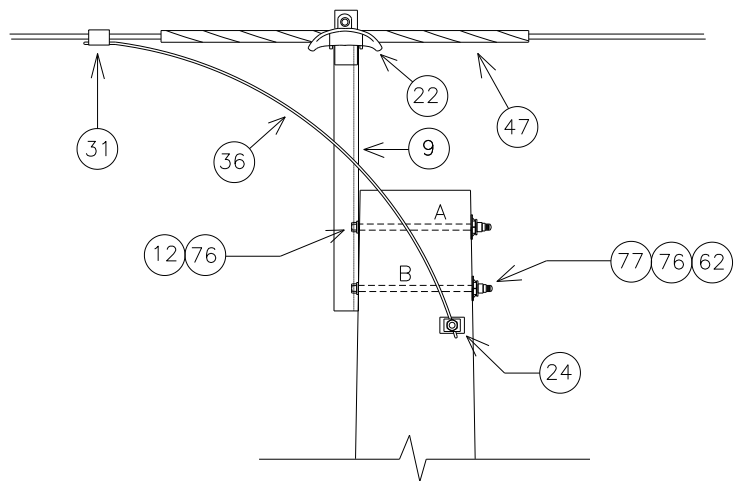


SSBSN

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH SUSPENSION CLAMP, NO GUY



In Line Face



Birthmark Face

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

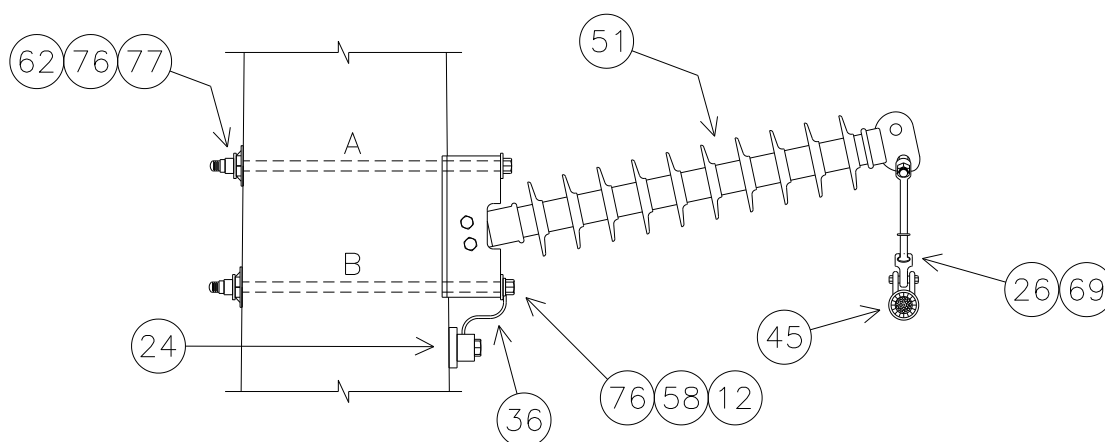
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNLA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, NO GUY, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.5	28.1	29.6
BOLT 'B' LENGTH (INCHES)	27.0	28.5	30.0

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

ISSPNLA3 PLATES

ISSPNLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNLA3*954A

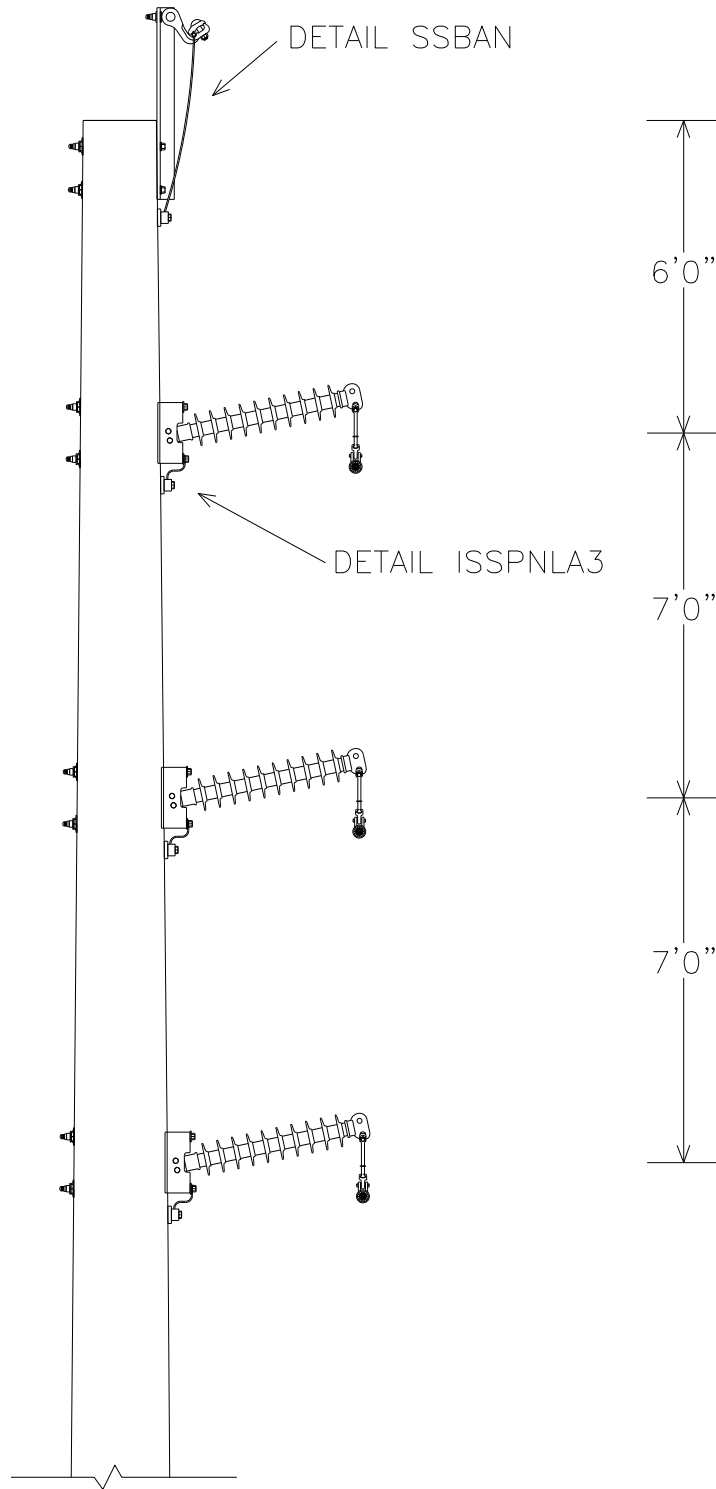
45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSPNLA3*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252

69KV SINGLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S



A1252 PLATES

A1252 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

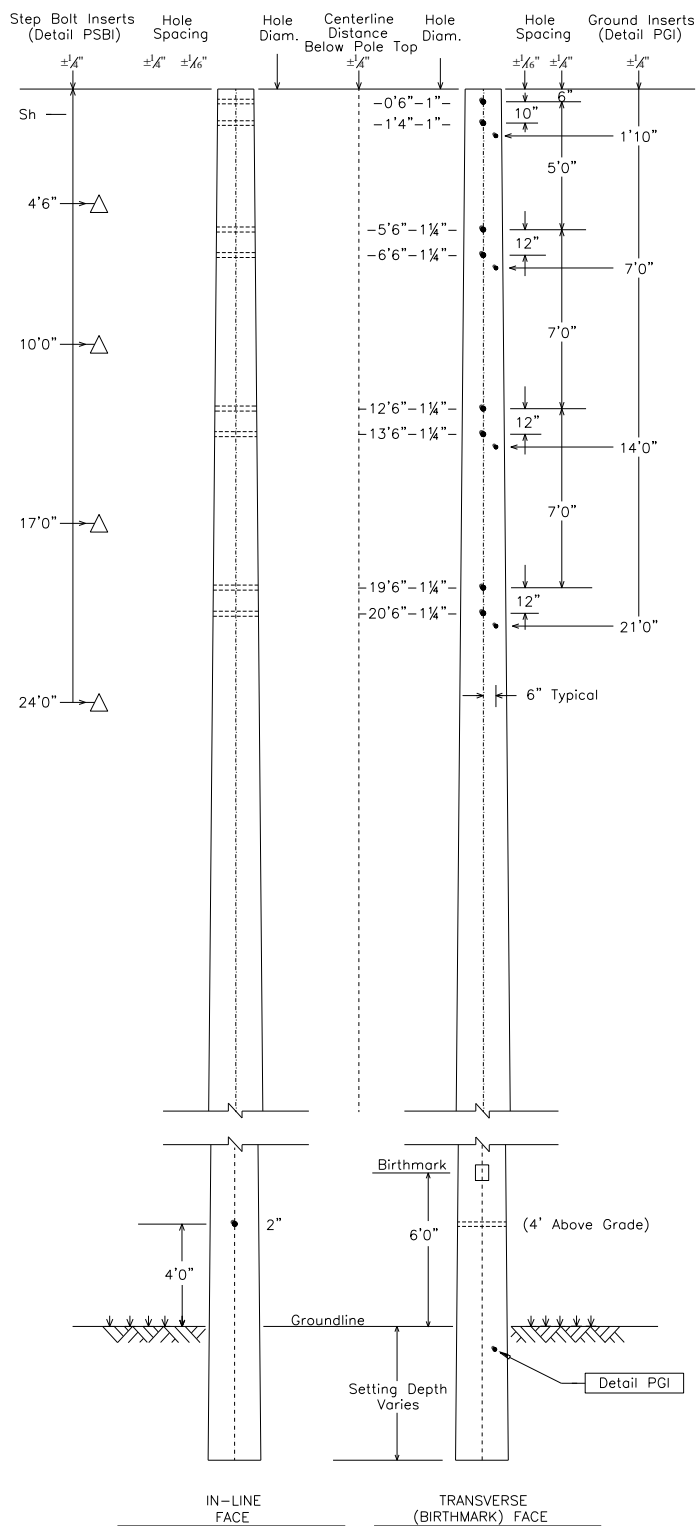
A1252*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252*954S

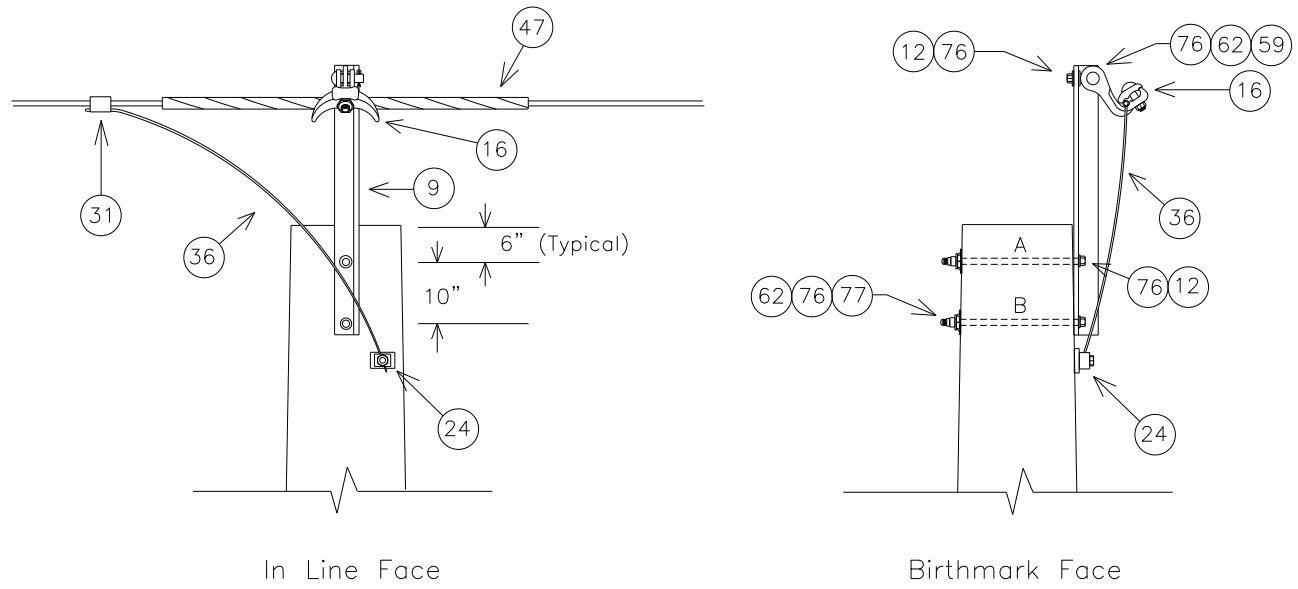
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252 DRILLING DETAIL



SSBAN

SHIELD FOR SPUN CONCRETE POLES BAYONET WITH ANGLE CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

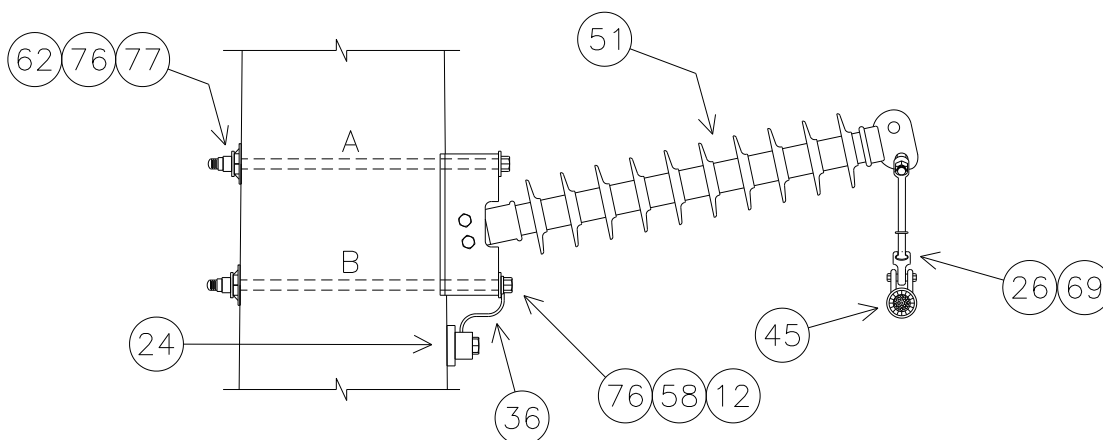
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAAAN 001	1	ANGLE CLAMP FOR 4-SOL – 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED. 4" X 4"

ISSPNLA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, NO GUY, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.5	28.1	29.6
BOLT 'B' LENGTH (INCHES)	27.0	28.5	30.0

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

ISSPNLA3 PLATES

ISSPNLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNLA3*954A

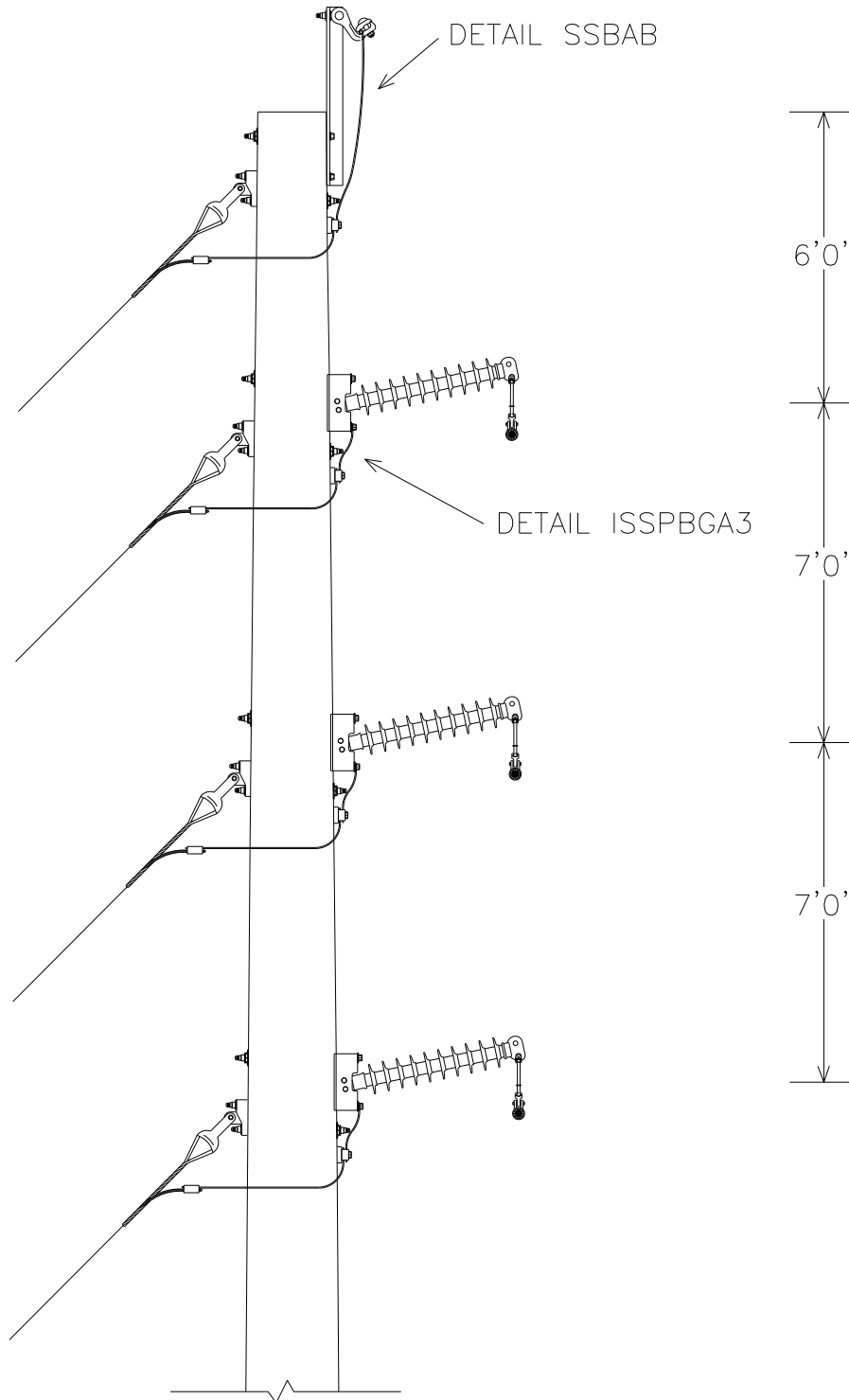
45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSPNLA3*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252A

69KV SINGLE POST, BACK GUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S



A1252A PLATES

A1252A BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
11	BOLDA 036	1	DOUBLE ARMING BOLT, 7/8" X 30", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 037	2	DOUBLE ARMING BOLT, 7/8" X 32", WITH 4 SQUARE NUTS ATTACHED
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 052	1	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	1	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	4	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	11	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	21	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	9	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

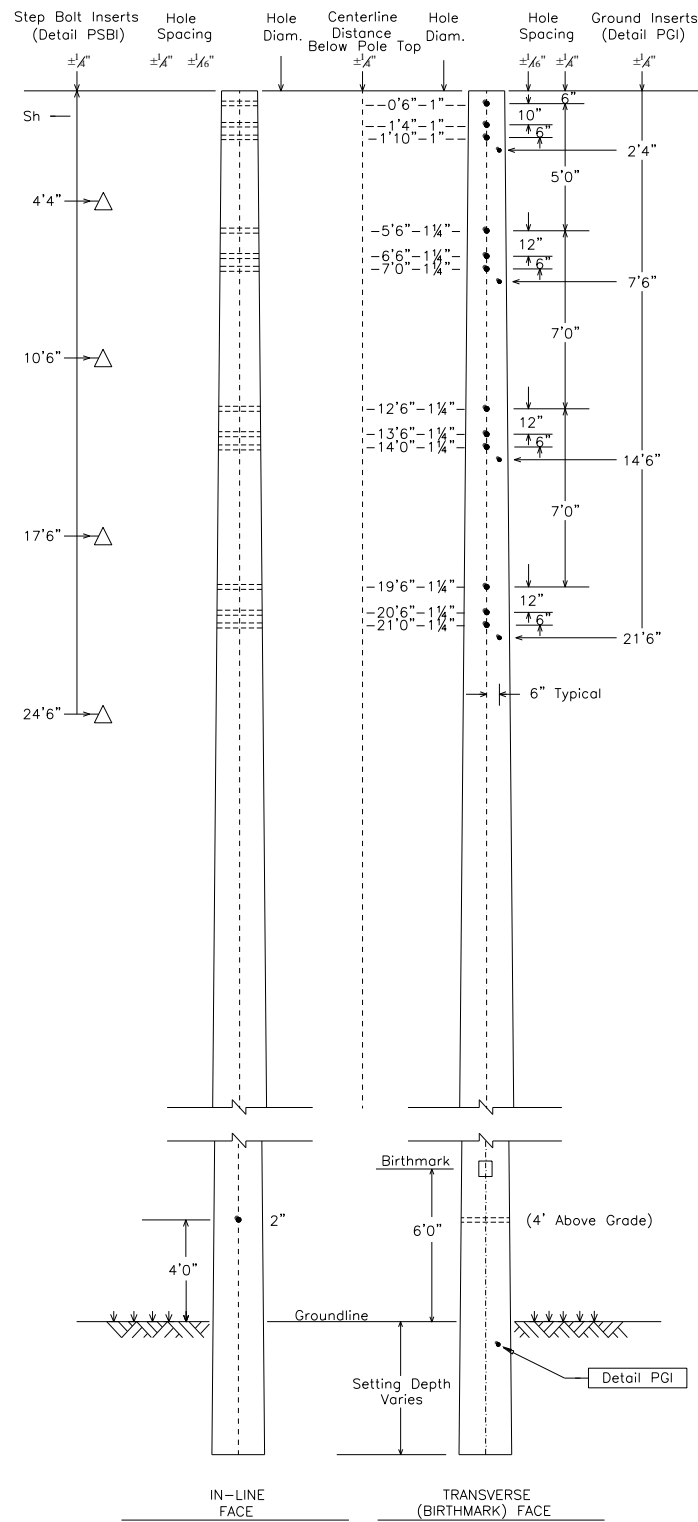
A1252A*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252A*954S

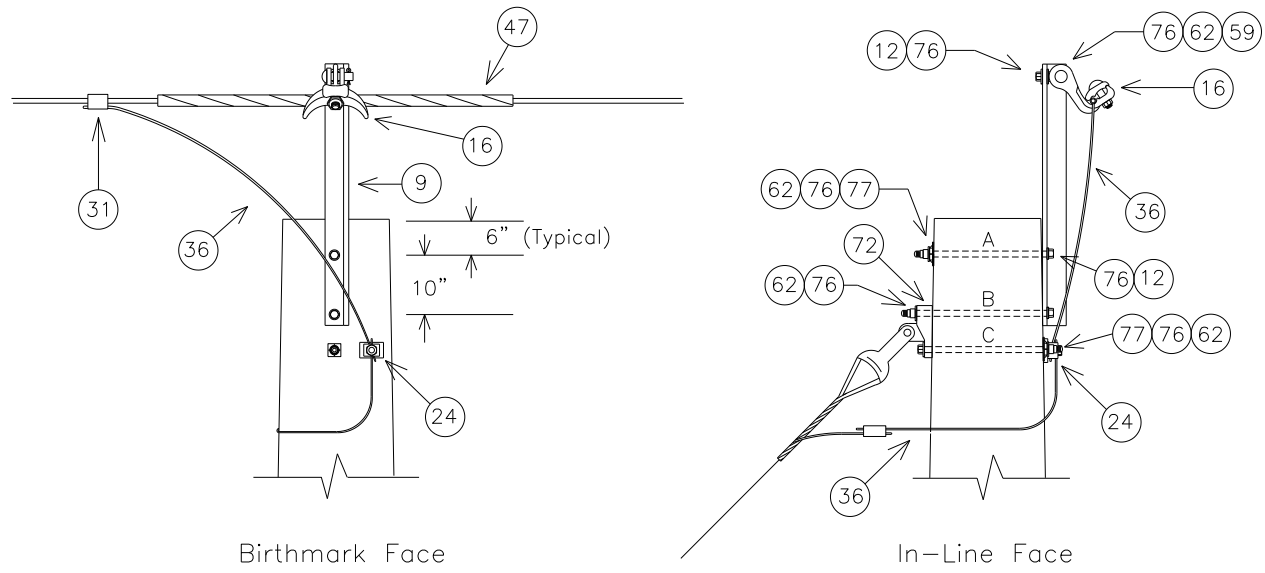
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252A DRILLING DETAIL



SSBAB

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

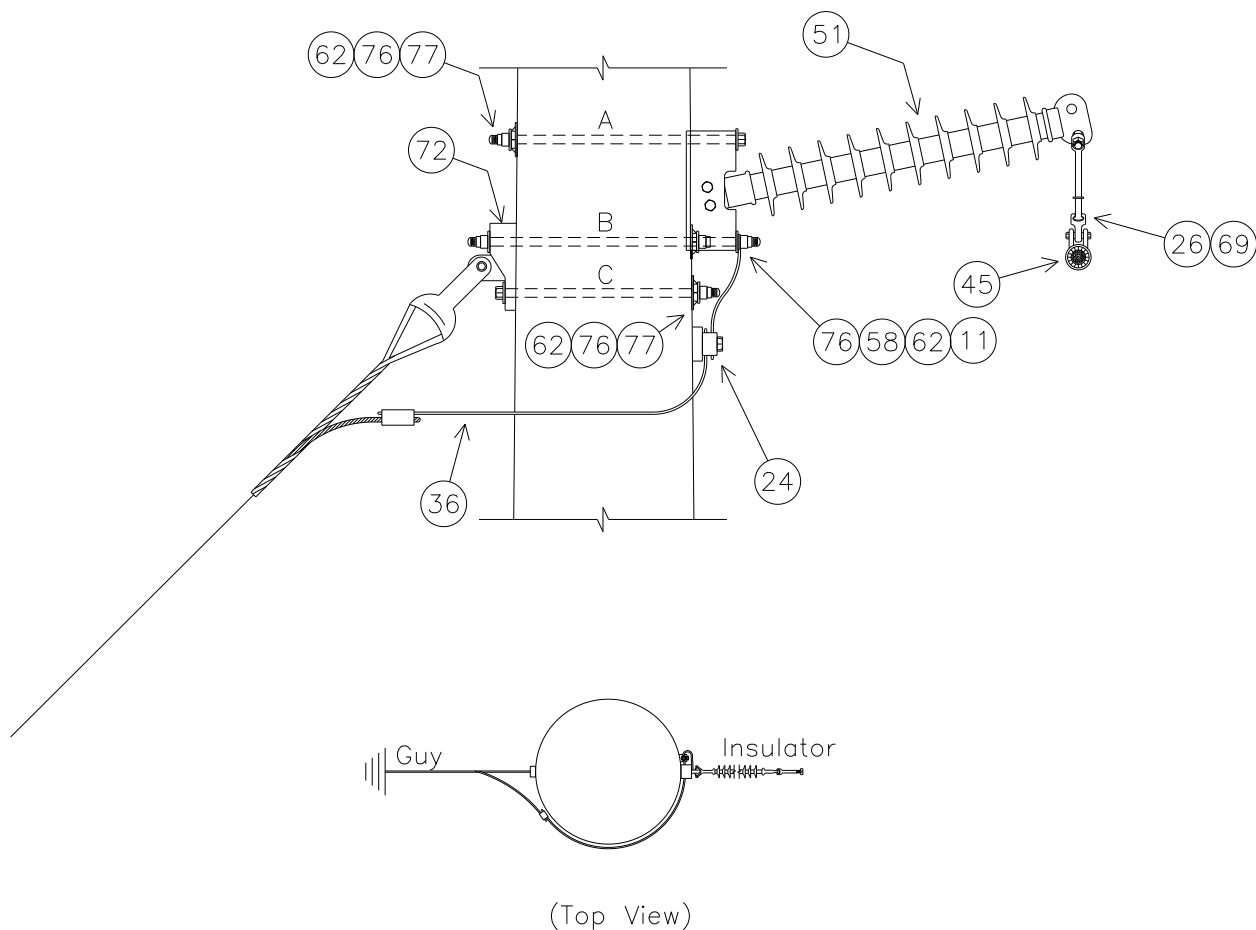
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	20.3

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	1	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPBGA3

INSULATOR FOR SPUN CONCRETE POLES
SINGLE POST, BOTTOM GUYED, 69KV, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.5	28.1	29.6
D.A. BOLT 'B' LENGTH (INCHES)	28.3	29.9	31.4
BOLT 'C' LENGTH (INCHES)	21.8	23.3	24.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSPBGA3 PLATES

ISSPBGA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
11	BOLDA 036	1	DOUBLE ARMING BOLT, 7/8" X 30", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 037	2	DOUBLE ARMING BOLT, 7/8" X 32", WITH 4 SQUARE NUTS ATTACHED
12	BOLMS 052	1	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	1	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.
36	COBCO 028	9 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	3	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	21	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	9	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPBGA3*954A

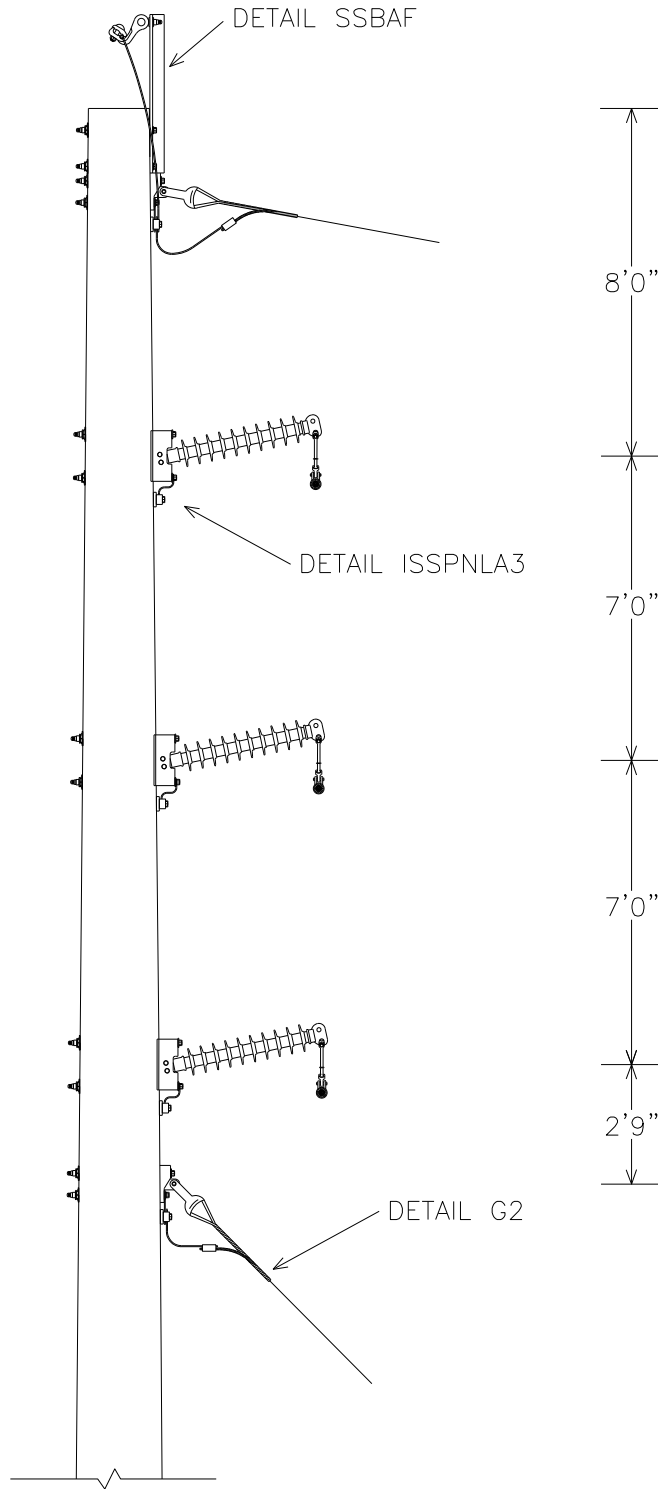
45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSPBGA3*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252B

69KV SINGLE POST, FRONT GUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 954A, 954S



A1252B PLATES

A1252B BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 052	2	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	4	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAAAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	5	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	4	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	10	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	2	TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16 BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	20	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	10	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

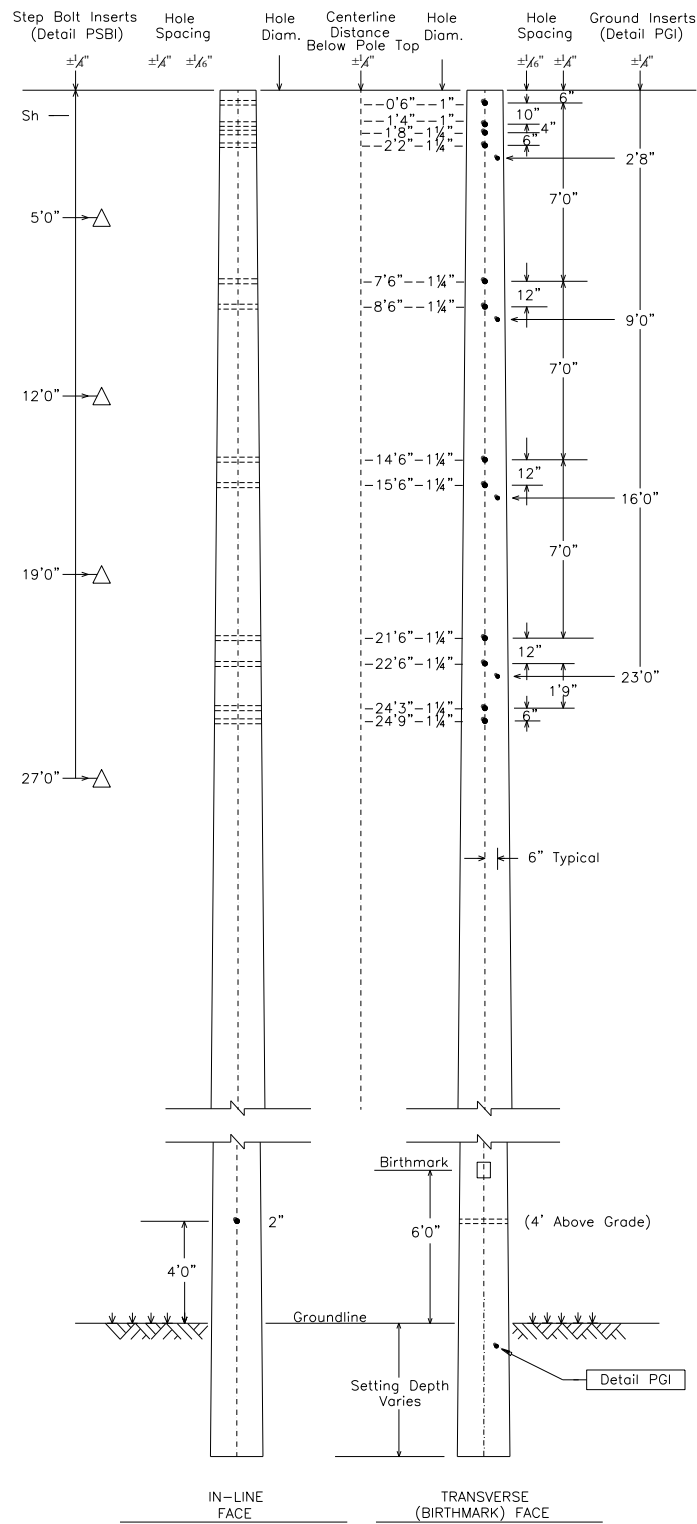
A1252B*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252B*954S

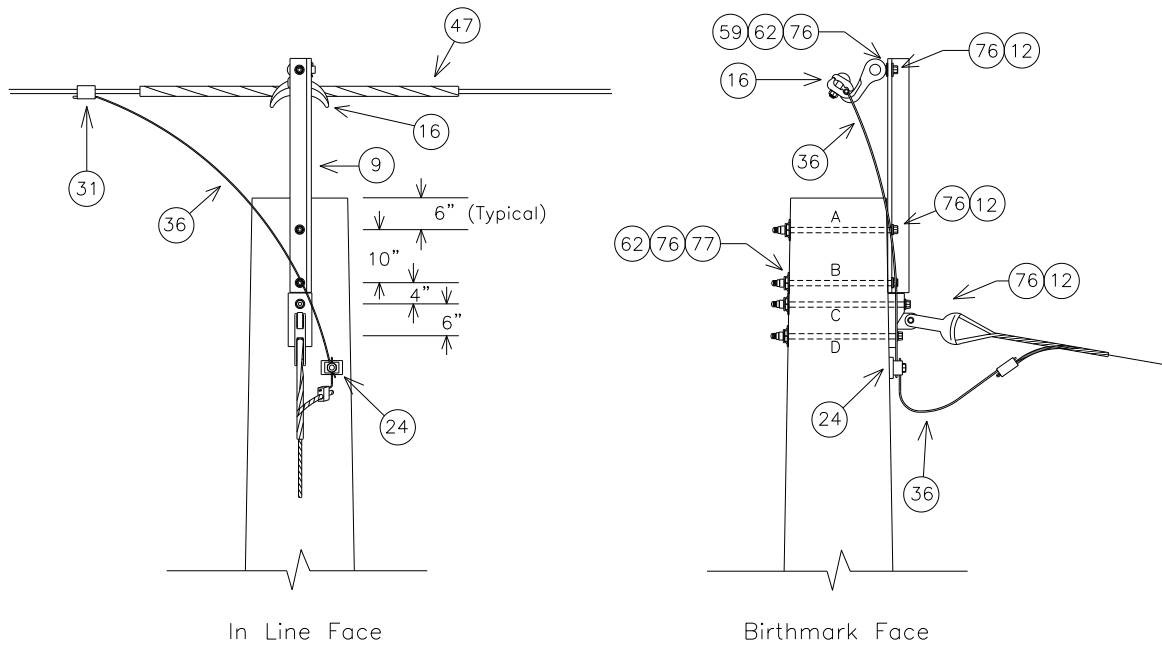
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A1252B DRILLING DETAIL



SSBAF

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, FRONT GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

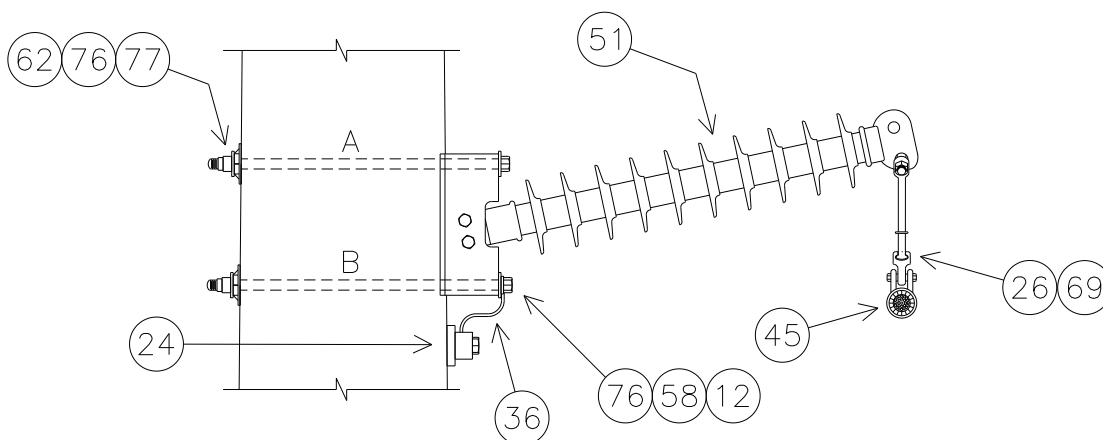
	'A'	'B'	'C'	'D'
MINIMUM REQUIRED BOLT LENGTH (INCHES)	19.6	19.8	21.7	20.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER;
USE 3/4" BOLTS FOR 'A' & 'B' AND 7/8" BOLTS FOR 'C' & 'D'

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 052	2	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
62	NUTSL 005	2	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	1	TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16" BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	4	ROUND WASHER FOR 7/8" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNLA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, NO GUY, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	27.0	28.5	30.0
BOLT 'B' LENGTH (INCHES)	27.4	29.0	30.5

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

ISSPNLA3 PLATES

ISSPNLA3 BASE

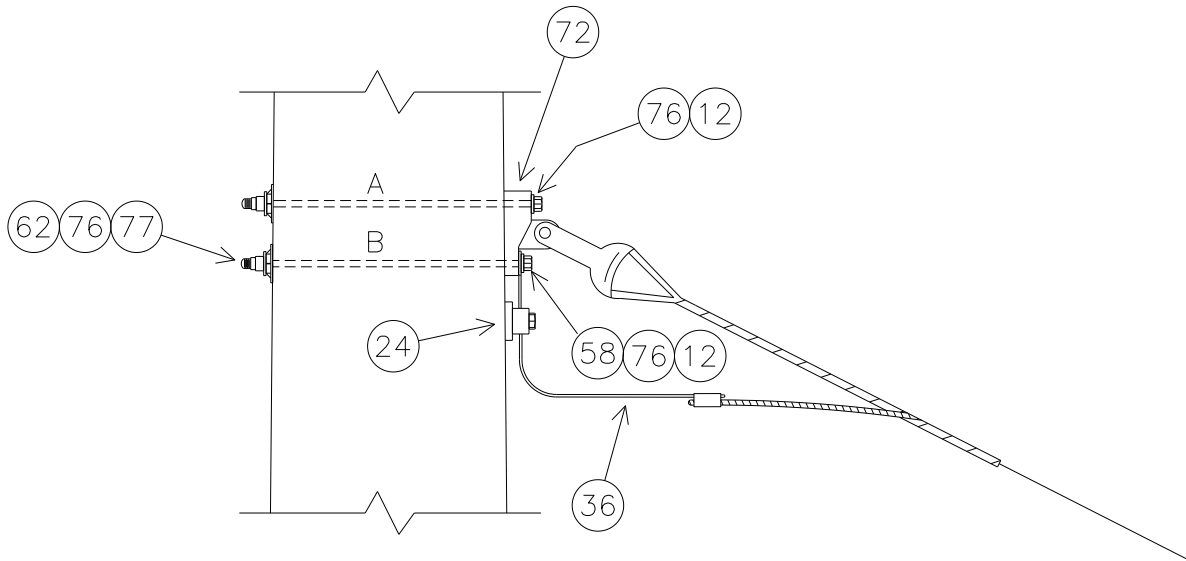
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNLA3*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

ISSPNLA3*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

G2**HEAVY GUY**

MINIMUM REQUIRED BOLT LENGTH
(INCHES)

'A'	26.7
'B'	26.0

NOTE: BOLT CALCULATIONS ASSUMES A 17 INCH POLE TOP DIAMETER

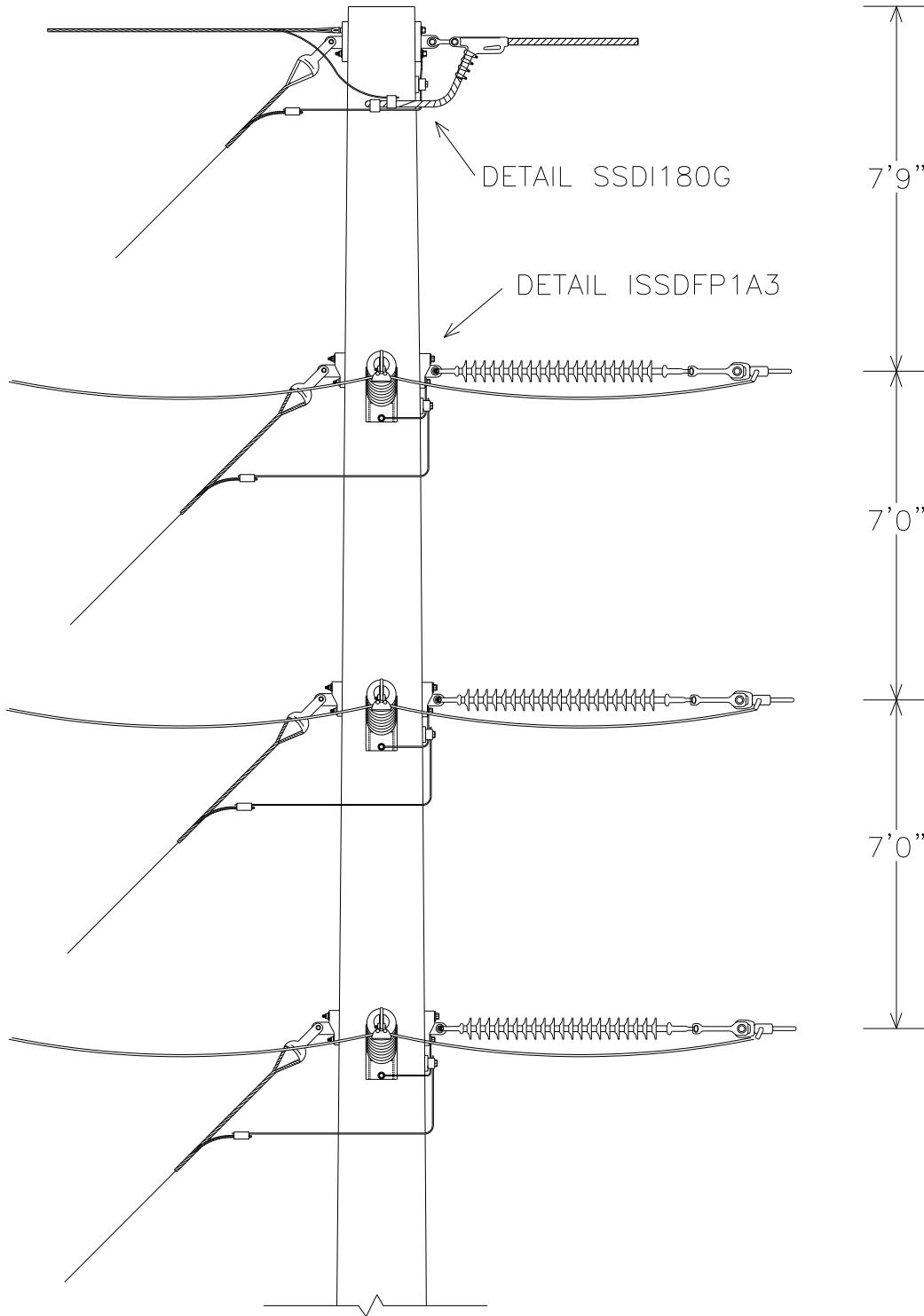
G2

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	1	GROUND CLAMP, USE CLAMP PROVIDED WITH INSULATORS FOR TOP BRACE GROUNDING
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 002	1	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	2	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	1	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	4	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

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A1286C

69KV, SINGLE DEAD-END 180°, FULL TENSION TO POST, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S, 1590



A1286C PLATES

A1286C BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
2	ADPCT 001	3	CLAMP-TOP ADAPTER, CONVERTS TWO HOLE BLADE TO CLAMP TOP POST
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8"CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUTEYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	8	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

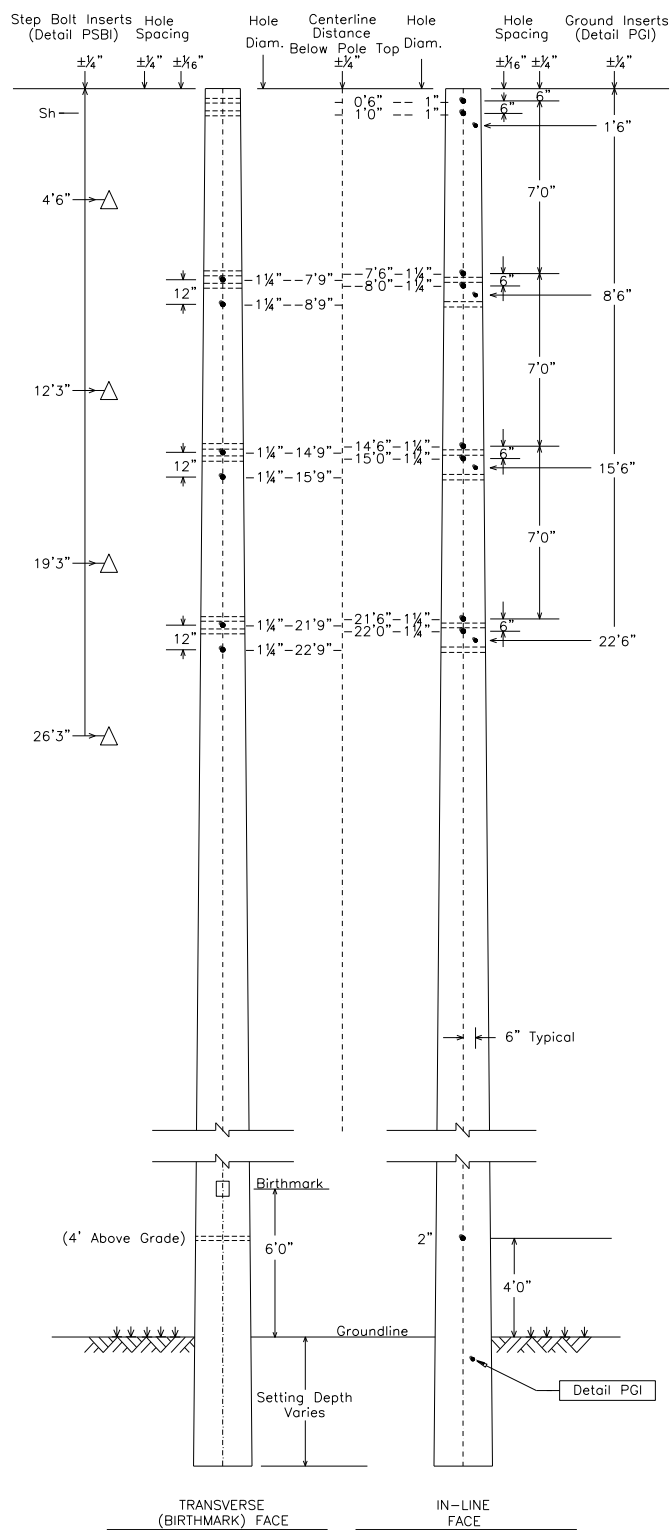
A1286C*556S, 954S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
17 (556S)	CLACT 004	3	CLAMP, ALUMINUM, FOR 556ASCR
17 (954S)	CLACT 005	3	CLAMP, ALUMINUM, FOR 954 ASCR
26 (556S)	CLEHL 004	3	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8, HOT DIPPED GALV.
26 (954S)	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42 (556S)	DEACB 003	3	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
42 (954S)	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50 (556S)	INSSU 008	3	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-3/5
50 (954S)	INSD 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
83 (556S)	RODAR 005	3	ARMOR ROD FOR 556 ACSR, 80 INCHES
83 (954S)	RODAR 007	3	ARMOR ROD FOR 954 ACSR, 100 INCHES

A1286C*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
17	CLACT 006	3	CLAMP, ALUMINUM, FOR 1590ASCR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSD 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED
83	RODAR 008	3	ARMOR ROD FOR 1590 ACSR, 100 INCHES

A1286C DRILLING DETAIL



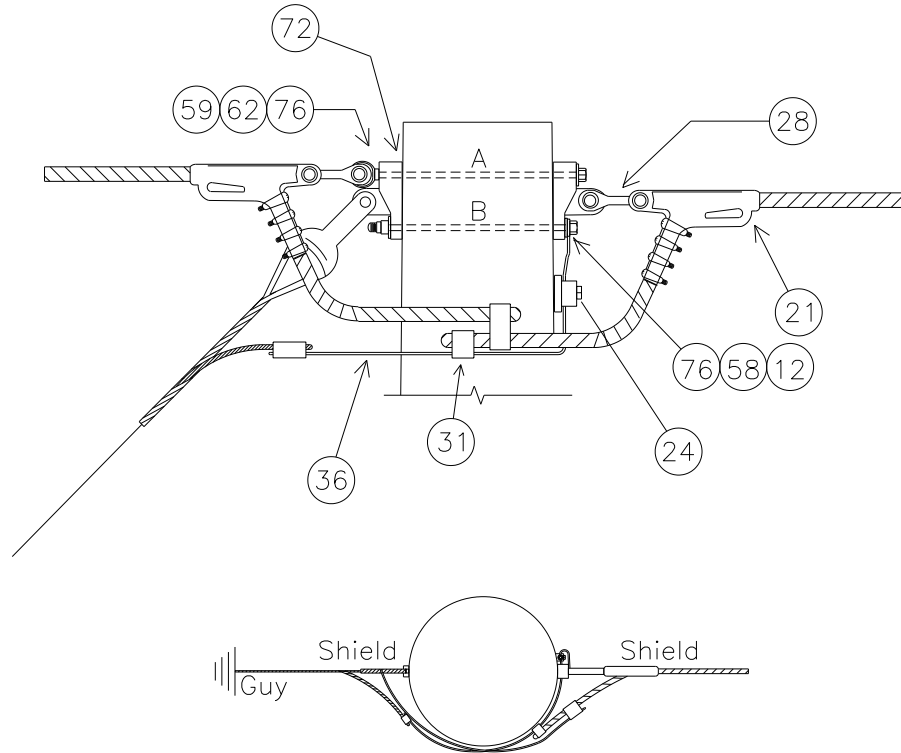
REVISÉ: OCTOBRE 2013

REVISÉ BY: MLR

APPROVED BY: KKR

SSDI180G

SHIELD FOR SPUN CONCRETE POLES
DOUBLE INLINE 180°, GUY



(Top View)

NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

UPPER BOLT LENGTH (INCHES)	23.6
LOWER BOLT LENGTH (INCHES)	20.9

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

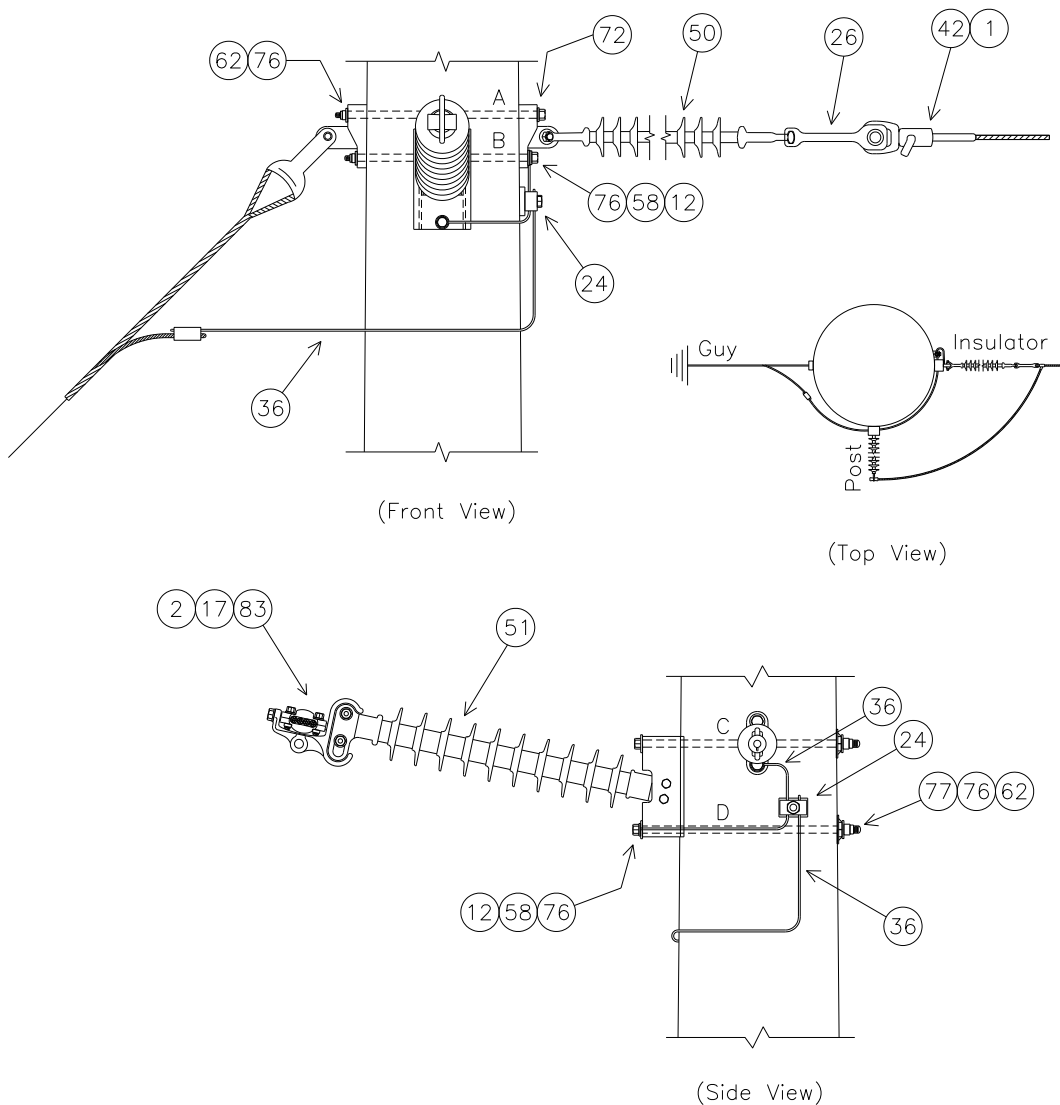
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 040	1	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 041	1	MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
28	CLETE 004	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (3#6 AW), ALUMINUM
31	CNNCP 003	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 001	1	LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUTEYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED

ISSDFP1A3

INSULATOR FOR SPUN CONCRETE POLES

SINGLE DEAD-END FULL TENSION TO POST, TYPE1, 69KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	24.3	25.8	27.3
BOLT 'B' LENGTH (INCHES)	22.7	24.2	25.7
BOLT 'C' LENGTH (INCHES)	27.0	28.5	30.1
BOLT 'D' LENGTH (INCHES)	27.5	29.0	30.5

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

ISSDFP1A3 PLATES

ISSDFP1A3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
1	ADCVF 001	3	VOID FILLER COMPOUND FOR DEADEND ASSEMBLY
2	ADPCT 001	3	CLAMP-TOP ADAPTER, CONVERTS TWO HOLE BLADE TO CLAMP TOP POST
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 074	2	MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	6	TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSDFP1A3*556S

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
17	CLACT 004	3	CLAMP, ALUMINUM, FOR 556ASCR
26	CLEHL 004	3	SOCKET-Y CLEVIS, CLASS 52-3/5, L = 11", PIN = 7/8", H.D.G.
42	DEACB 003	3	DEADEND COMPRESSION ASSEMBLY FOR 556 ACSR, OVAL EYE
50	INSSU 008	3	SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-3/5
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
83	RODAR 005	3	ARMOR ROD FOR 556 ASCR, 80"

ISSDFP1A3*954S

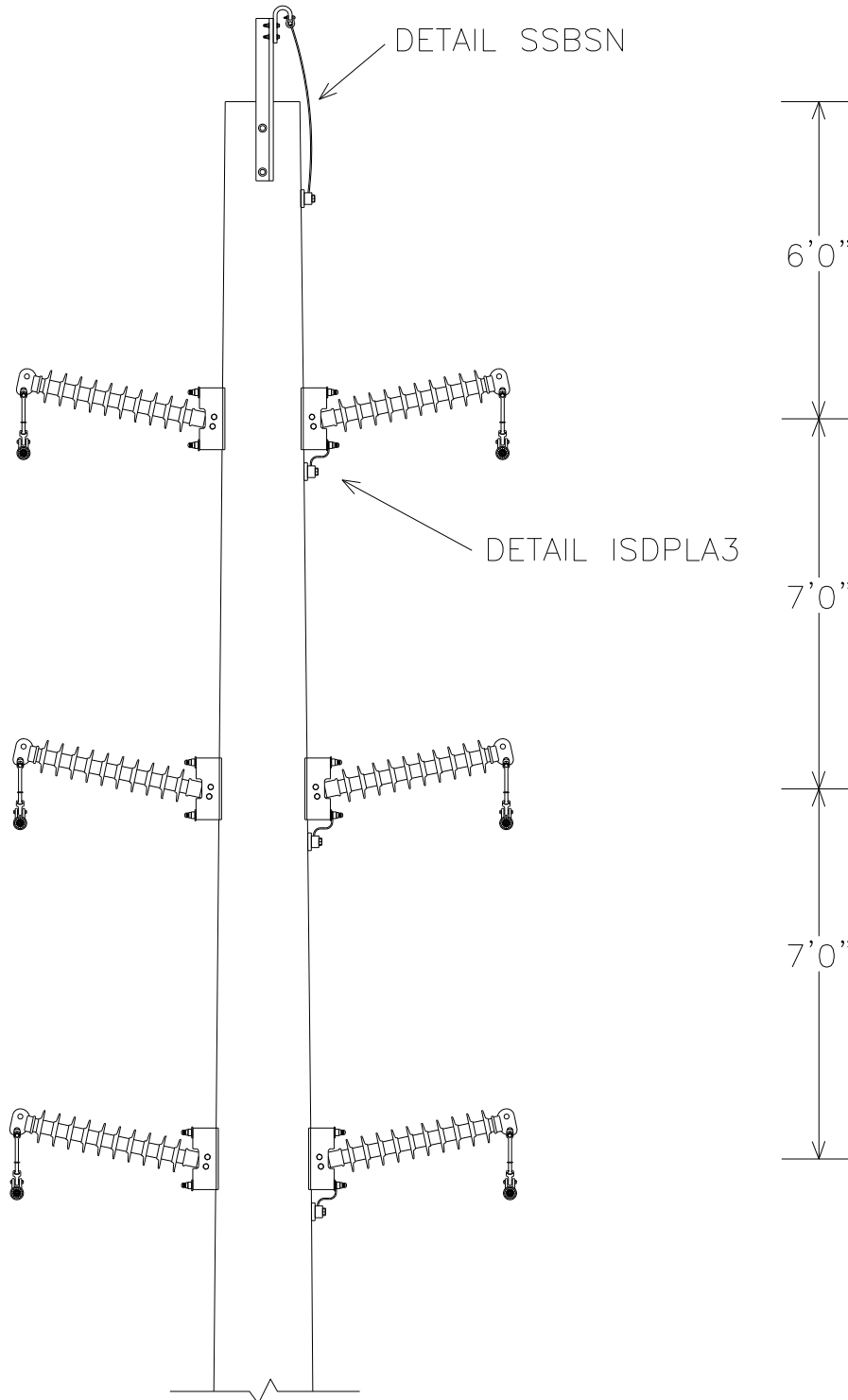
NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	1	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	4	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	1	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
17	CLACT 005	3	CLAMP, ALUMINUM, FOR 954ASCR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 005	3	DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
83	RODAR 007	3	ARMOR ROD FOR 954 ASCR, 100"

ISSDFP1A3*1590

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 063	1	MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 064	4	MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 070	1	MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
17	CLACT 006	3	CLAMP, ALUMINUM, FOR 1590ASCR
26	CLEHL 005	3	SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.
42	DEACB 007	3	DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
58	LUGGR 003	3	LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 006	6	SQUARE LOCK NUT FOR 1" BOLT, H.D.G.
76	WASRD 007	12	ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED
83	RODAR 008	3	ARMOR ROD FOR 1590 ASCR, 100"

A2251

69KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S



A2251 PLATES

A2251 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
11	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	12 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - .366"
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A2251*556S

45	GRISA 001	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ACSR
69	SOCEY 004	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=3/4

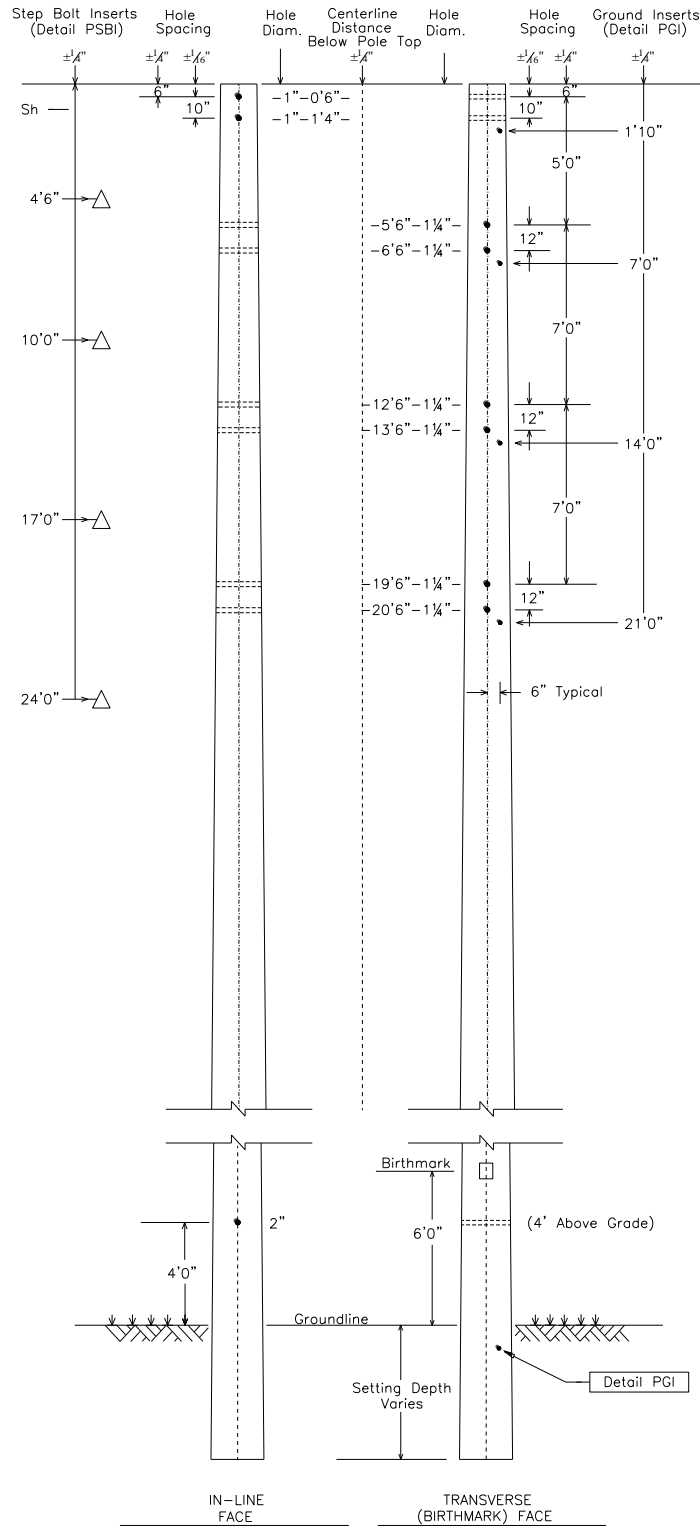
A2251*954A

45	GRISA 003	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=1 1/16

A2251*954S

45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=1 1/16

A2251 DRILLING DETAIL



SSBSN

REVISED: OCTOBER 2013

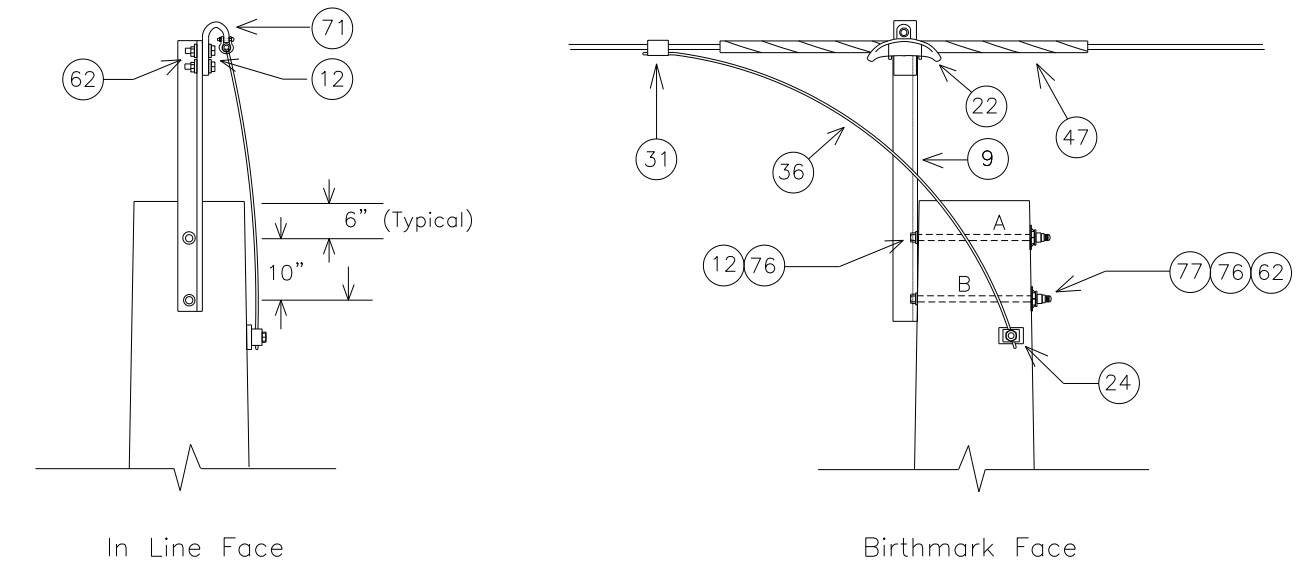
REVISED BY: MLR

APPROVED BY: KKR

69KV STRUCTURES-NEW CONSTRUCTION

STS69-96

SHIELD FOR SPUN CONCRETE POLES BAYONET WITH SUSPENSION CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

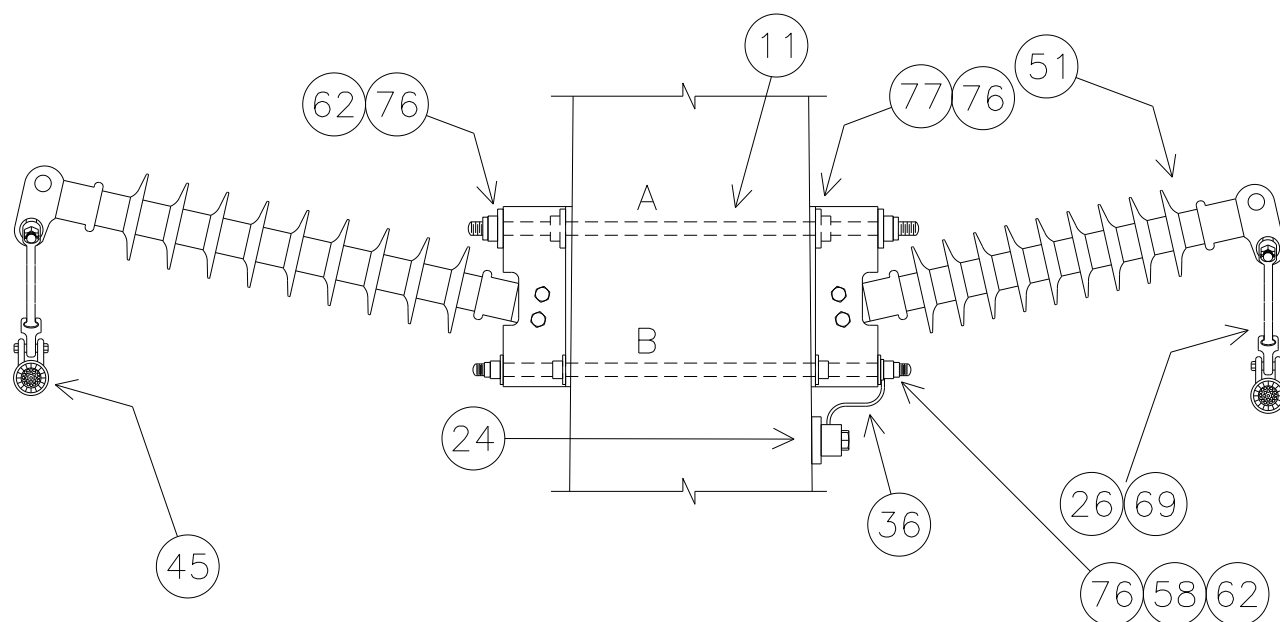
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISDPLA3

**INSULATOR FOR SPUN CONCRETE POLES
DOUBLE POST, LONG CLEVIS, 69KV, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S**



NOTE: SEE MBA2 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	33.2	34.7	36.2
BOLT 'B' LENGTH (INCHES)	33.7	35.2	36.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

ISDPLA3 PLATES

ISDPLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L ≈ 10", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

ISDPLA3*556S

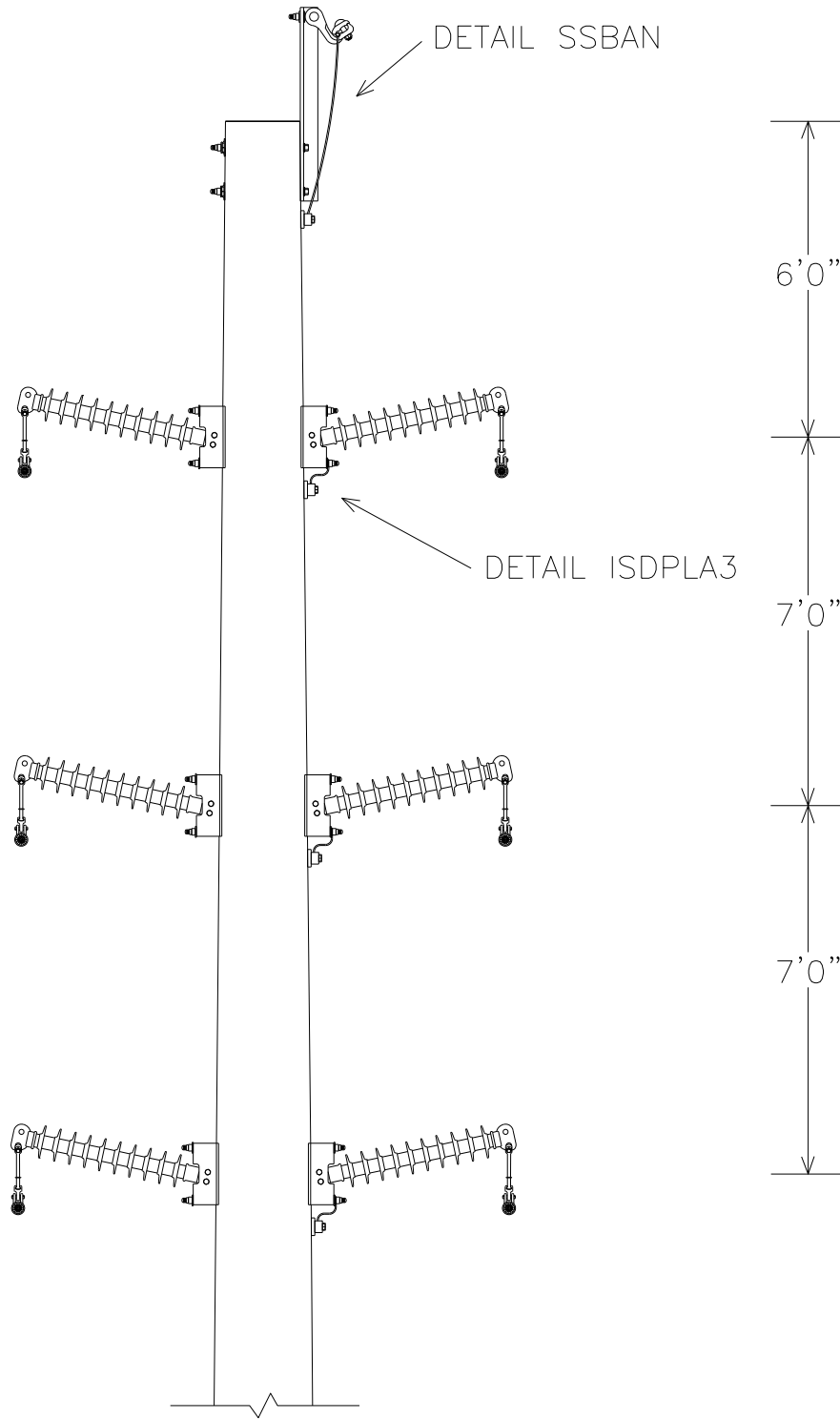
45	GRISA 001	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR
69	SOCEY 004	6	SOCKET - EYE, STENGTH = 20,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=3/4"

ISDPLA3*954S

45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=1 1/16"

A2252

69KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954S



A2252 PLATES

A2252 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
11	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAAAN 001	1	ANGLE CLAMP FOR 4-SOL – 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	9 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

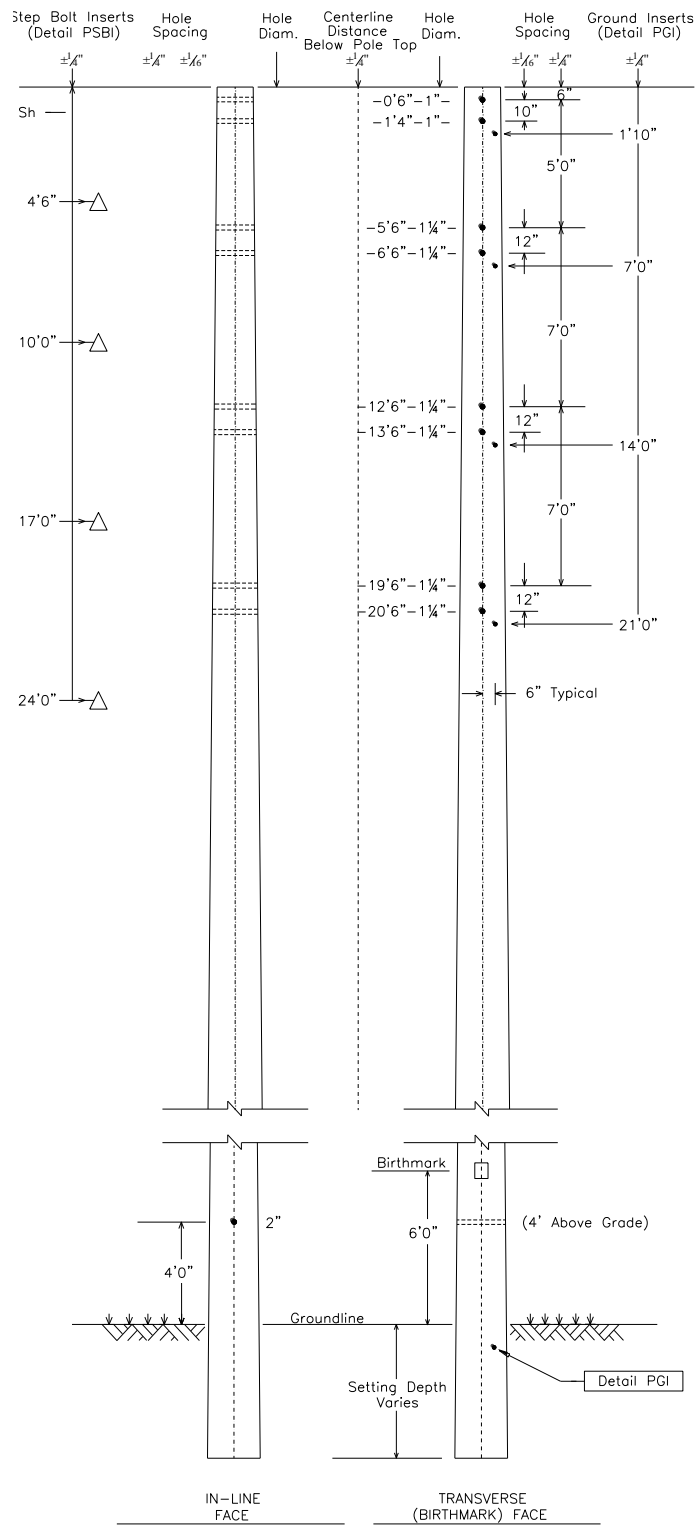
A2252*556S

45	GRISA 001	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR
69	SOCEY 004	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A2252*954S

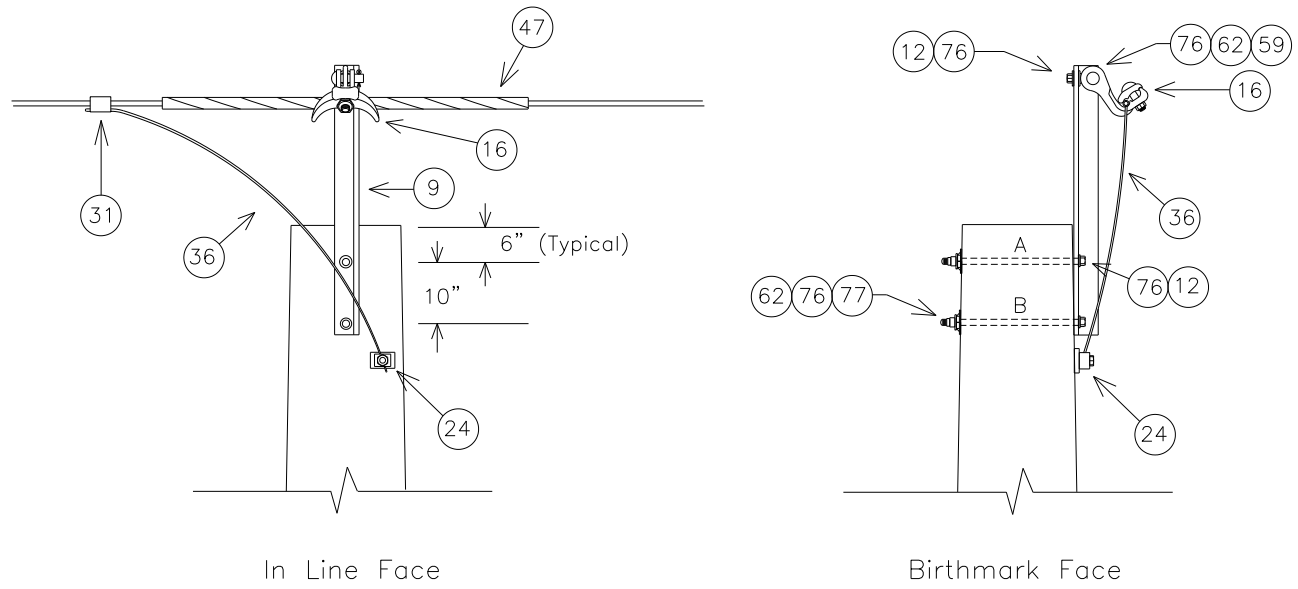
45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A2252 DRILLING DETAIL



SSBAN

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

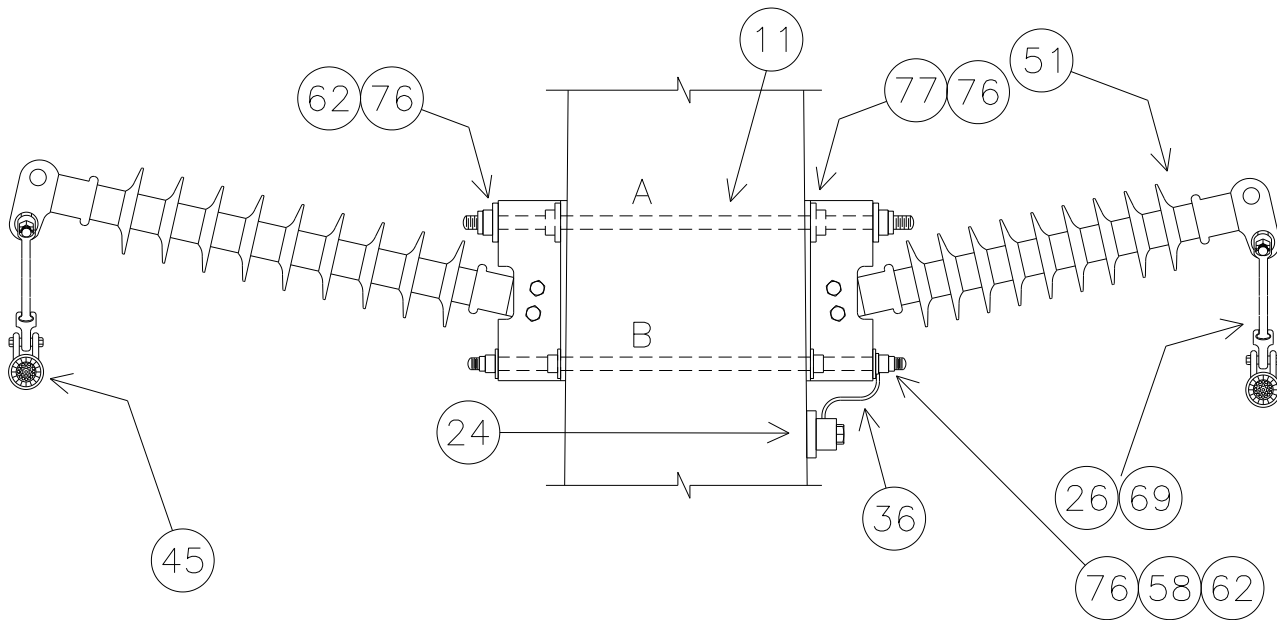
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA01	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISDPLA3

INSULATOR FOR SPUN CONCRETE POLES
 DOUBLE POST, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954S



NOTE: SEE MBA2 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	33.2	34.7	36.2
BOLT 'B' LENGTH (INCHES)	33.7	35.2	36.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

ISDPLA3 PLATES

ISDPLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L ≈ 10", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

ISDPLA3*556S

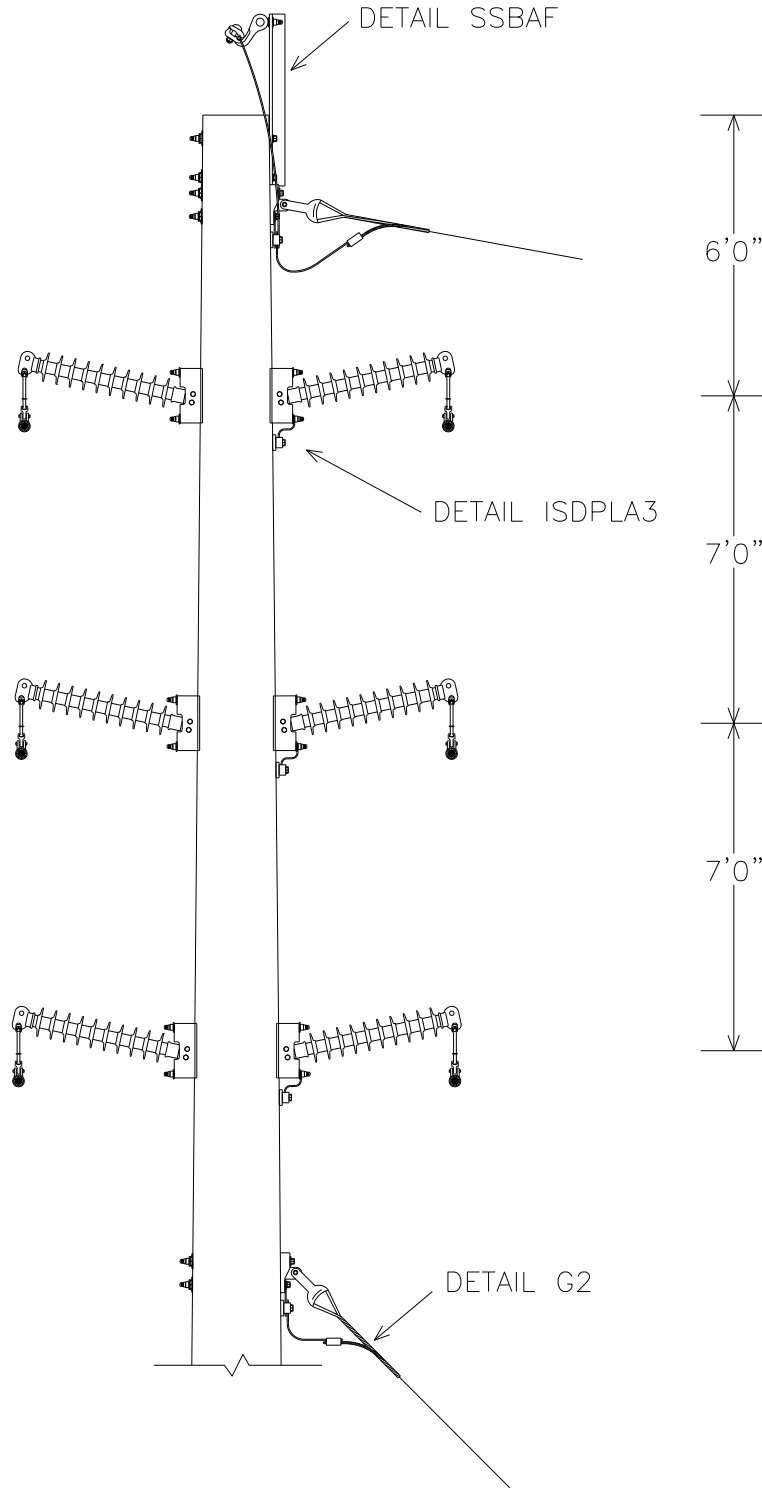
45	GRISA 001	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR
69	SOCEY 004	6	SOCKET - EYE, STENGTH = 20,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=3/4"

ISDPLA3*954S

45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=1 1/16"

A2253

69KV DOUBLE POST, FRONT GUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 954S



A2253 PLATES

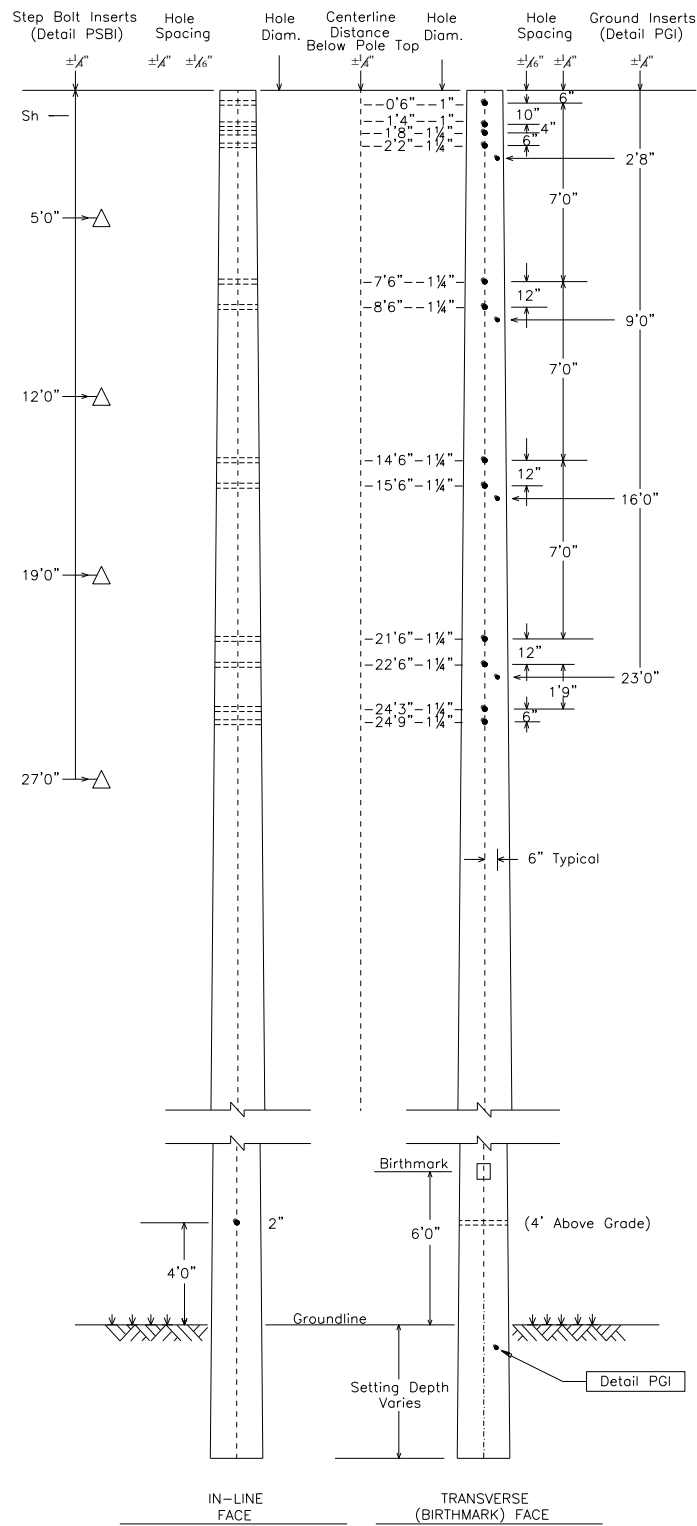
A2253 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
11	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
11	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 052	2	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAAAN 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	5	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	18 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - .366"
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTGY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	16	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	2	TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16 BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	32	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A2252*954S

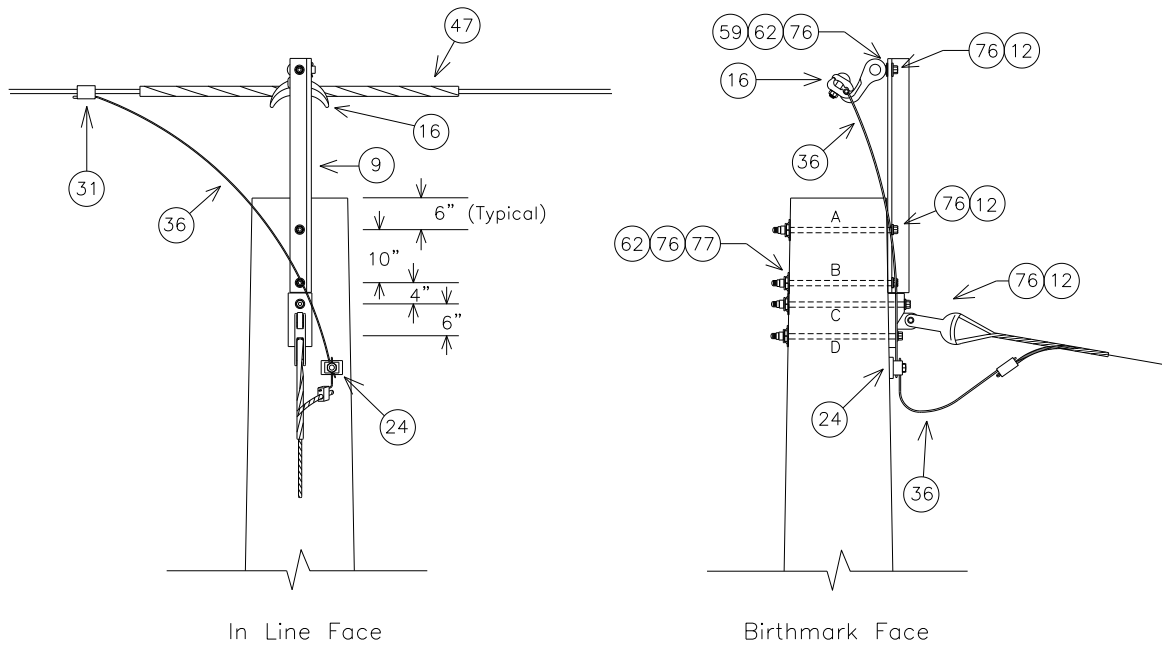
45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.

A2253 DRILLING DETAIL



SSBAF

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, FRONT GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

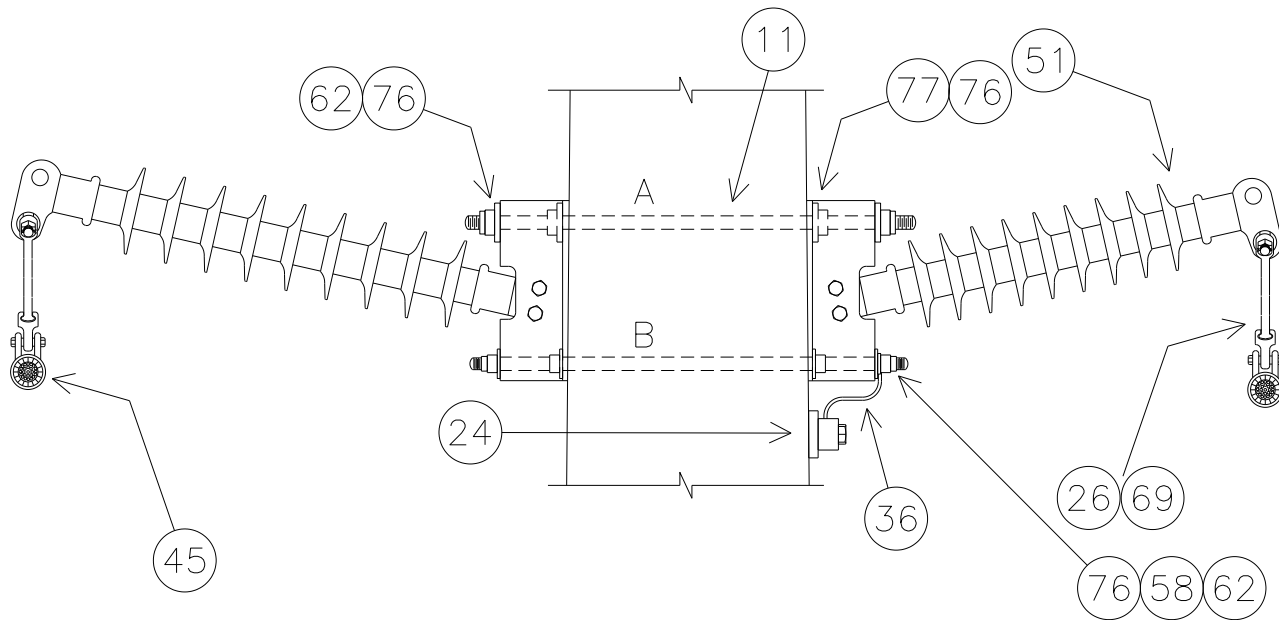
	'A'	'B'	'C'	'D'
MINIMUM REQUIRED BOLT LENGTH (INCHES)	19.6	19.8	21.7	20.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER;
USE 3/4" BOLTS FOR 'A' & 'B' AND 7/8" BOLTS FOR 'C' & 'D'

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 052	2	MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
62	NUTSL 005	2	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
72	TEEDE 003	1	TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16" BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	4	ROUND WASHER FOR 7/8" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISDPLA3

INSULATOR FOR SPUN CONCRETE POLES
 DOUBLE POST, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 954S



NOTE: SEE MBA2 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	33.2	34.7	36.2
BOLT 'B' LENGTH (INCHES)	33.7	35.2	36.7

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

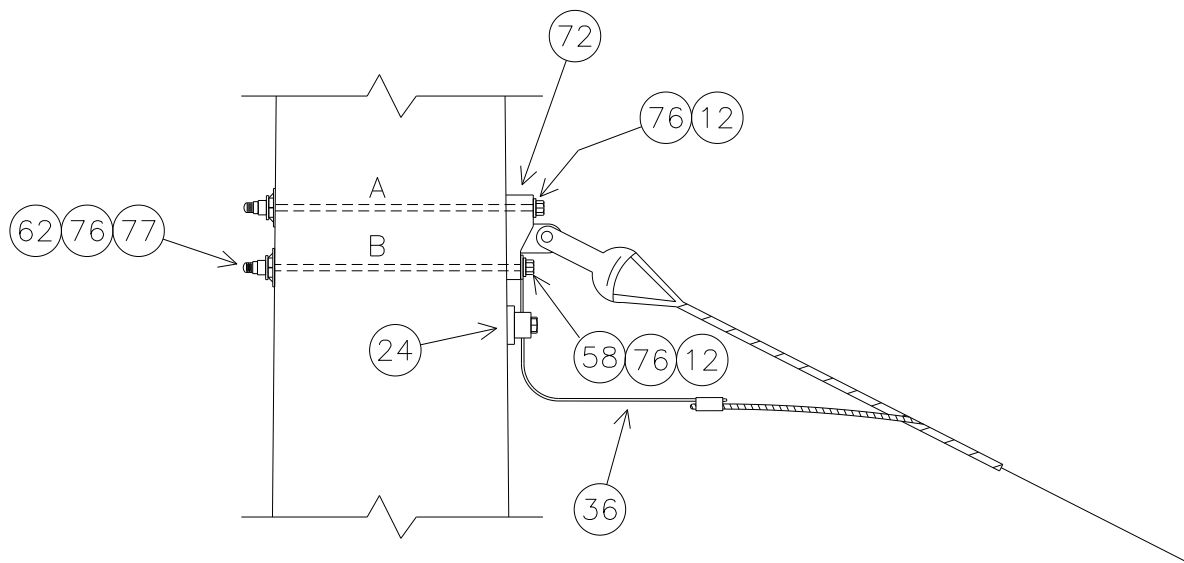
ISDPLA3 PLATES

ISDPLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLDA 038	2	DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 039	2	DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED
12	BOLDA 040	2	DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	6	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L ≈ 10", PIN = 3/4", H.D.G.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	6	HORIZONTAL POST INSULATOR, 69KV, L = 45", GAIN BASE, 12° RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	12	SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.
76	WASRD 006	24	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	12	SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE

ISDPLA3*954S

45	GRISA 004	6	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	6	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=1 1/16"

G2**HEAVY GUY**

MINIMUM REQUIRED BOLT LENGTH
(INCHES)

'A'	26.7
'B'	26.0

NOTE: BOLT CALCULATIONS ASSUMES A 17 INCH POLE TOP DIAMETER

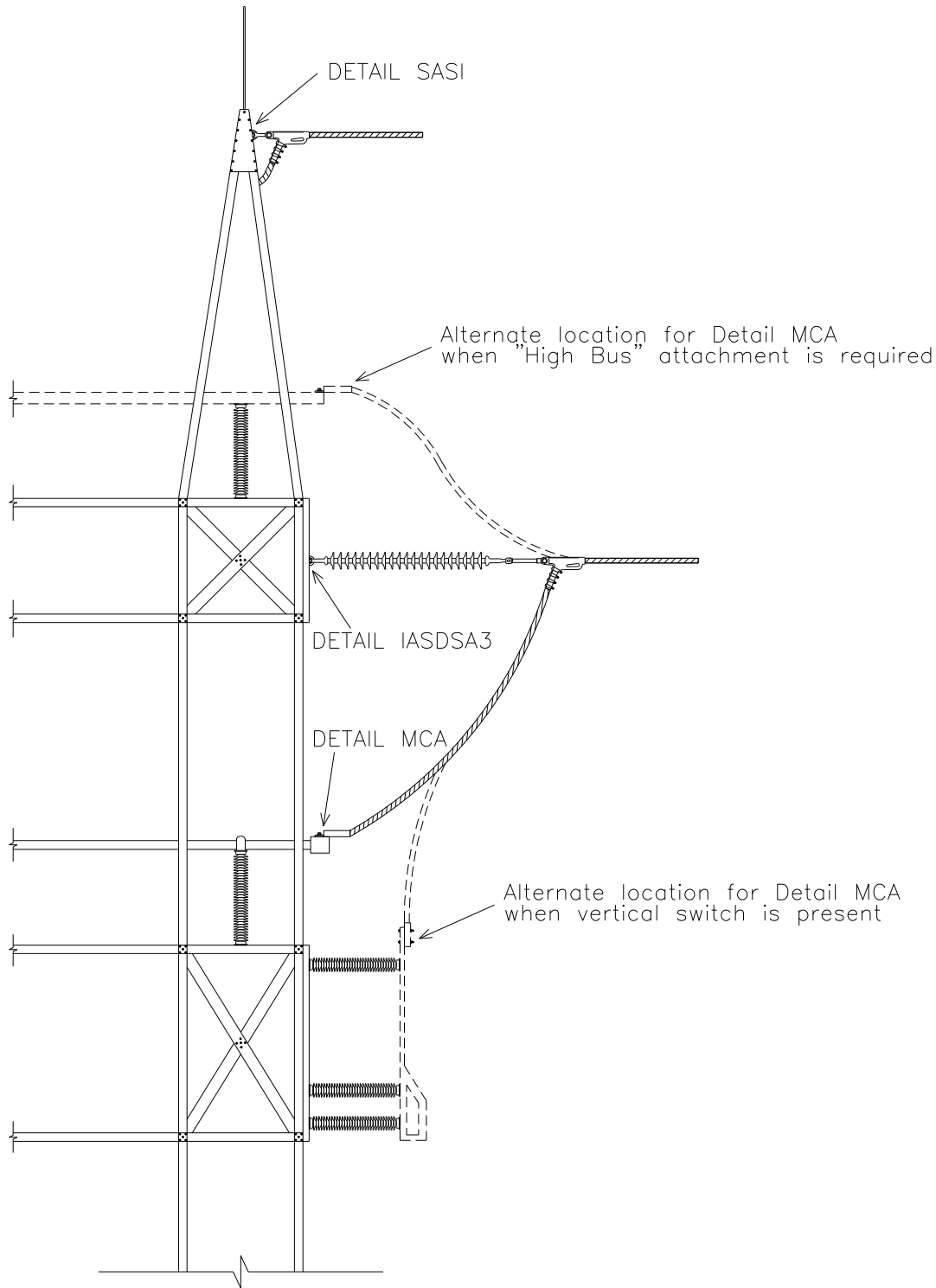
G2

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	1	GROUND CLAMP, USE CLAMP PROVIDED WITH INSULATORS FOR TOP BRACE GROUNDING
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 002	1	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	2	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	1	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	4	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

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A3A45Q

69KV, SINGLE DEADEND, SLACK TENSION, SUBSTATION LATTICE, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A3A45Q PLATES

A3A45Q BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	5	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 001	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
33	CNNPA 590	2	TWO BOLT PARALLEL CONNECTOR
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
59	NUTEY 002	5	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED
60	NUTBC 500	12	SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO
66	SCWHI 519	12	STAINLESS STEEL BOLT, 2 1/2" X 1/2"
74	WASBA 500	12	BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS
75	WASFG 500	24	FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS
76	WASRD 004	10	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

A3A45Q*556S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 002	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE

A3A45Q*954A

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 006	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE

A3A45Q*954S

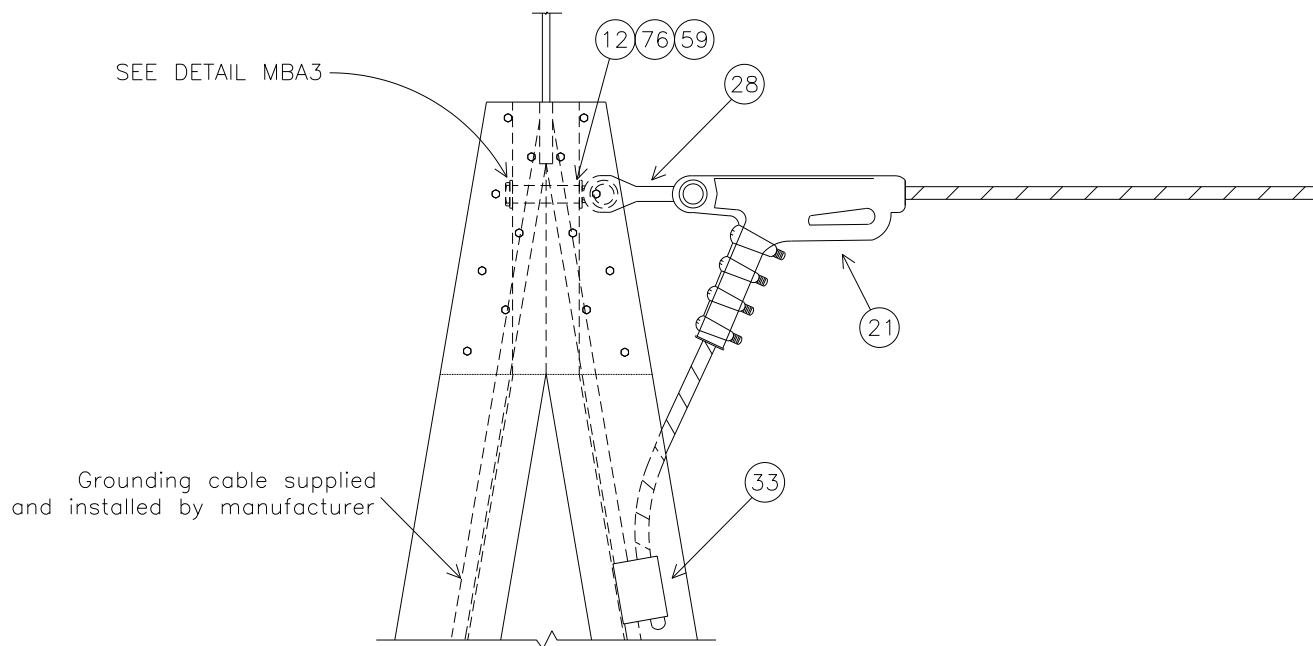
NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 007	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE

A3A45Q*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
30	CNNAJ 008	3	ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE

SASI

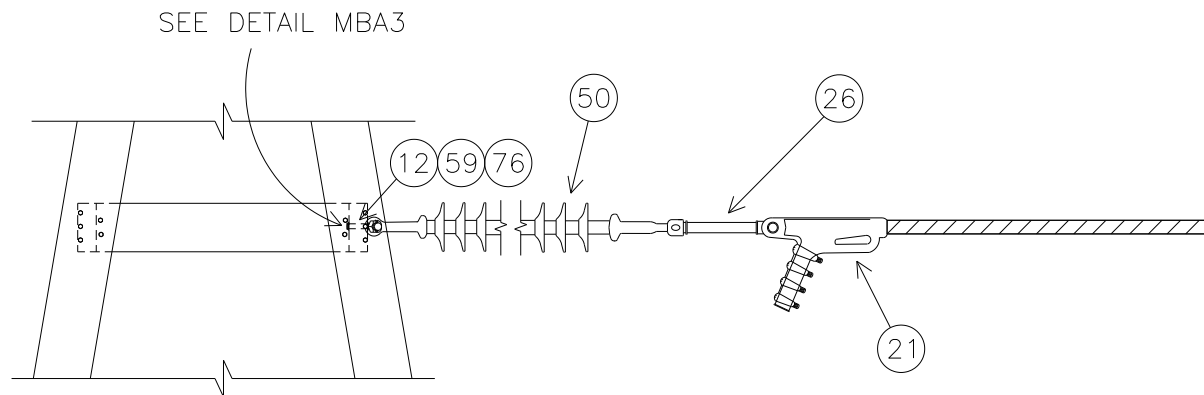
SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	2	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
28	CLETE 001	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
33	CNNPA 590	2	TWO BOLT PARALLEL CONNECTOR
59	NUTEY 002	2	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.
76	WASRD 004	4	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

IASDSA3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES
SINGLE DEAD-END, SLACK TENSION, 69KV, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



IASDSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	3	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
59	NUTUY 002	3	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.
76	WASRD 004	6	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

IASDSA3*556S, 954A, 954S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"

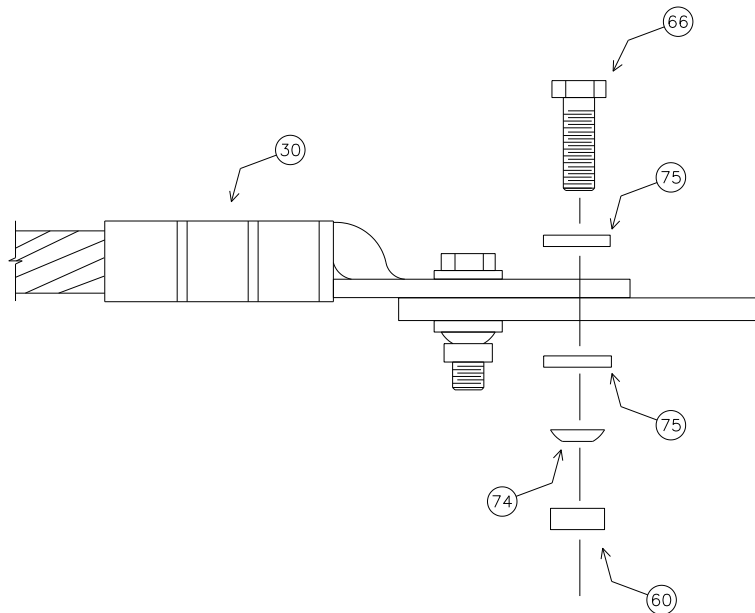
IASDSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"

MCA

CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



MCA BASE

NO.	ITEM ID	QTY	DESCRIPTION
60	NUTBC 500	12	SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO
66	SCWHI 519	12	STAINLESS STEEL BOLT, 2 1/2" X 1/2"
74	WASBA 500	12	BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS
75	WASFG 500	24	FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS

MCA*556S

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 002	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE

MCA*954A

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 006	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE

MCA*954S

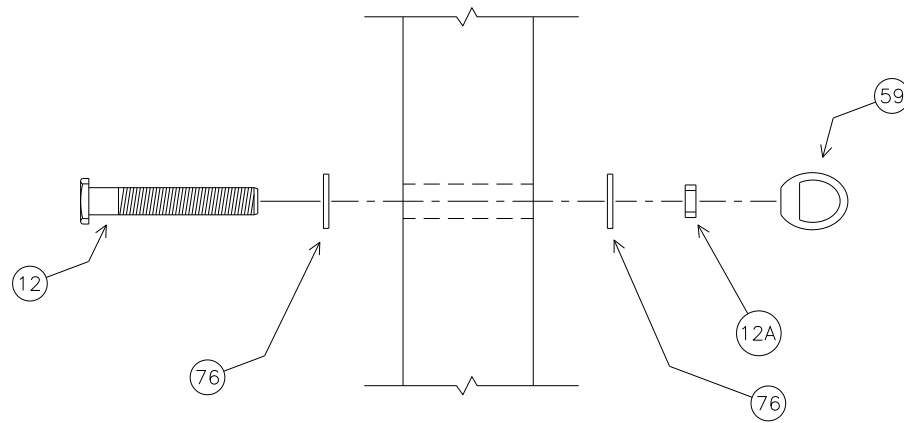
NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 007	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE

MCA*1590

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 008	3	ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION

MBA3

TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES



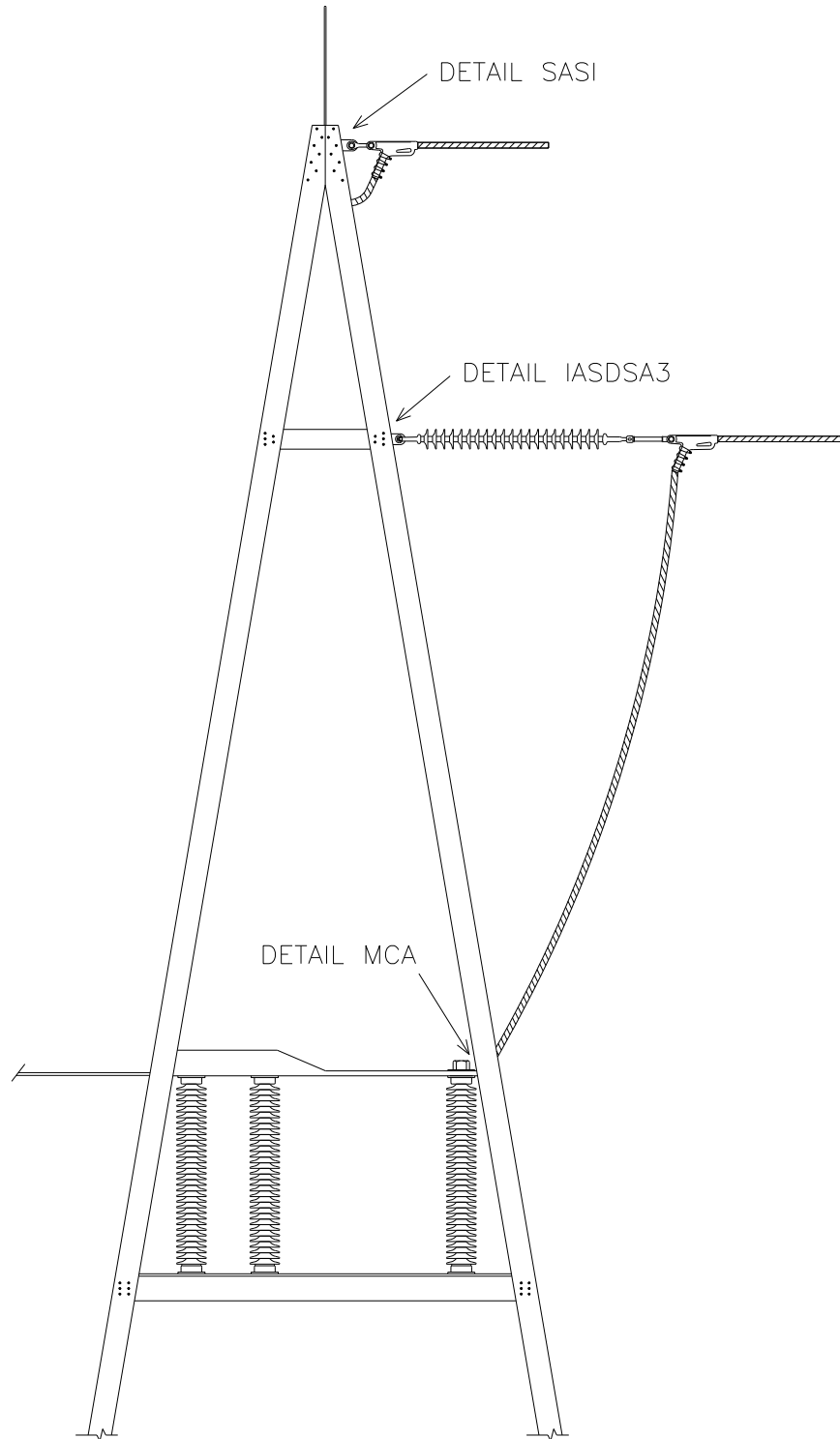
MBA3 PLATE

NO.	ITEM ID	QTY	DESCRIPTION
12,12A	BOLMS 016	5	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
59	NUTEY 002	5	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED
76	WASRD 004	10	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

A3B45Q

69KV, SINGLE DEADEND, SLACK TENSION, SUBSTATION A-FRAME, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A3B45Q PLATES

A3B45Q BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	5	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.
28	CLETE 001	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
33	CNNPA 590	2	TWO BOLT PARALLEL CONNECTOR
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66 INCHES, CLASS 52-8/11
59	NUTEY 002	5	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED
60	NUTBC 500	12	SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO
66	SCWHI 519	12	STAINLESS STEEL BOLT, 2 1/2" X 1/2"
74	WASBA 500	12	BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS
75	WASFG 500	24	FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS
76	WASRD 004	10	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

A3B45Q*556S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 002	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE

A3B45Q*954A

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 006	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE

A3B45Q*954S

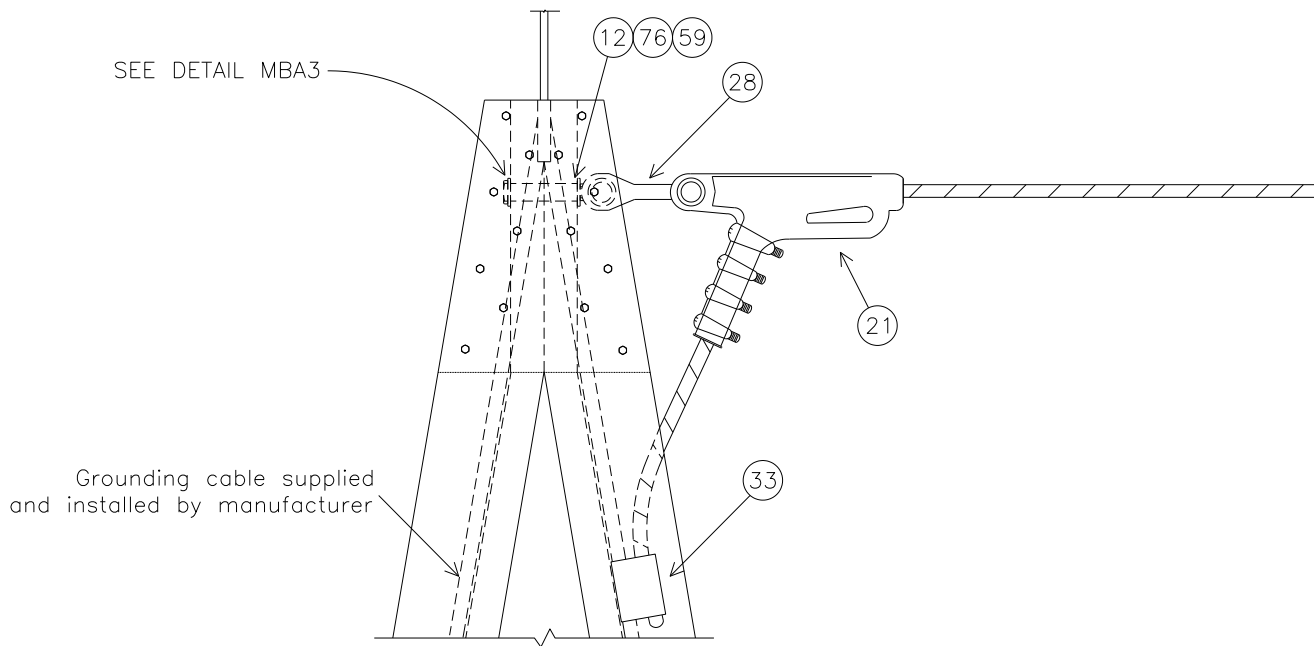
NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"
30	CNNAJ 007	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE

A3B45Q*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"
30	CNNAJ 008	3	ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE

SASI

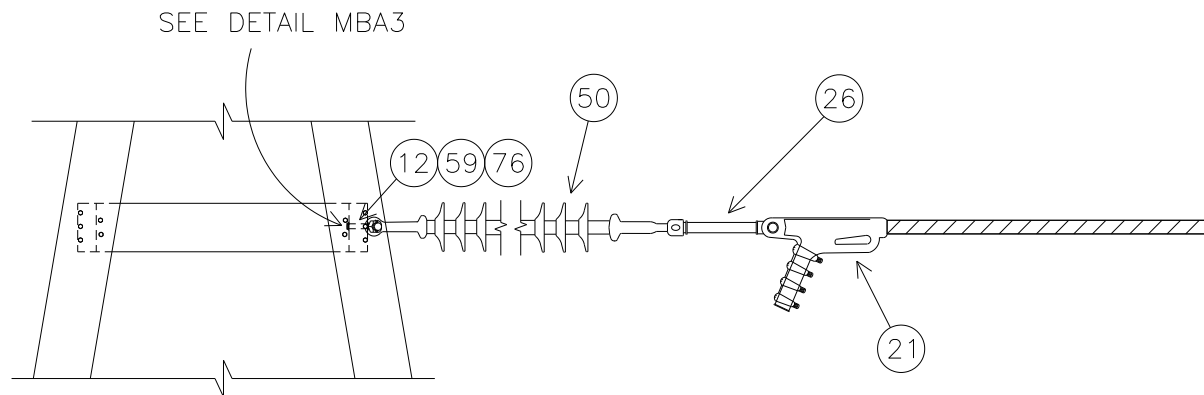
SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	2	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
21	CLAQD 008	2	DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW
28	CLETE 001	2	TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.
33	CNNPA 590	2	TWO BOLT PARALLEL CONNECTOR
59	NUTEY 002	2	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.
76	WASRD 004	4	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

IASDSA3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES
SINGLE DEAD-END, SLACK TENSION, 69KV, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



IASDSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 016	3	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
26	CLEHL 008	3	SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G.
50	INSDE 004	3	DEADEND SILICON INSULATOR, Y-BALL COUPLING, 69KV, L = 66", CLASS 52-8/11
59	NUTUY 002	3	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.
76	WASRD 004	6	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

IASDSA3*556S, 954A, 954S

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 005	3	DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"

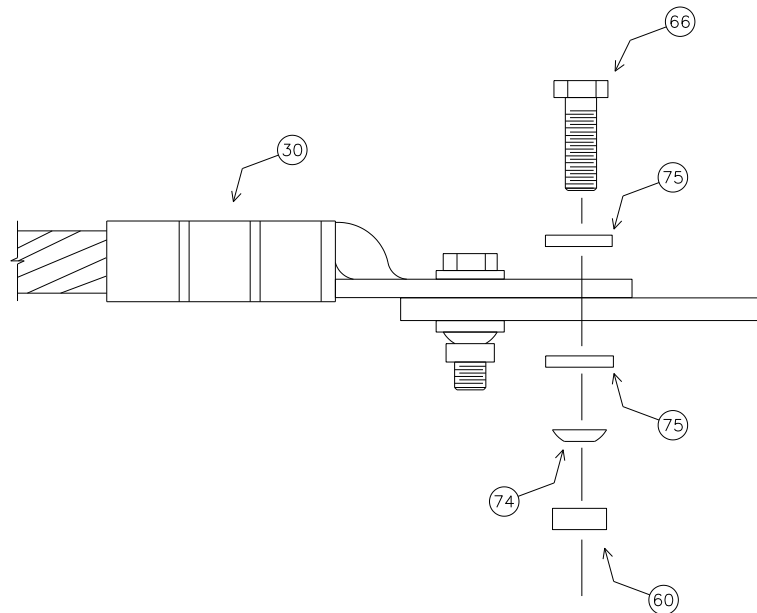
IASDSA3*1590

NO.	ITEM ID	QTY	DESCRIPTION
21	CLAQD 006	3	DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"

MCA

CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



MCA BASE

NO.	ITEM ID	QTY	DESCRIPTION
60	NUTBC 500	12	SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO
66	SCWHI 519	12	STAINLESS STEEL BOLT, 2 1/2" X 1/2"
74	WASBA 500	12	BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS
75	WASFG 500	24	FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS

MCA*556S

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 002	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE

MCA*954A

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 006	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE

MCA*954S

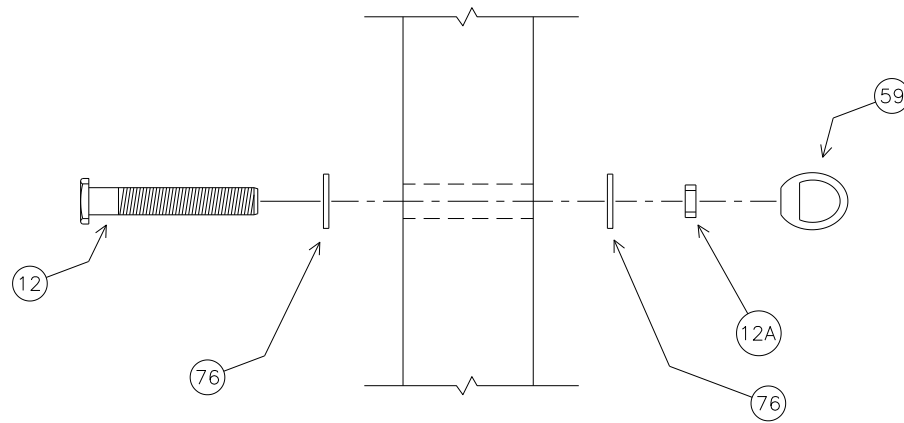
NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 007	3	ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE

MCA*1590

NO.	ITEM ID	QTY	DESCRIPTION
30	CNNAJ 008	3	ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION

MBA3

TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES



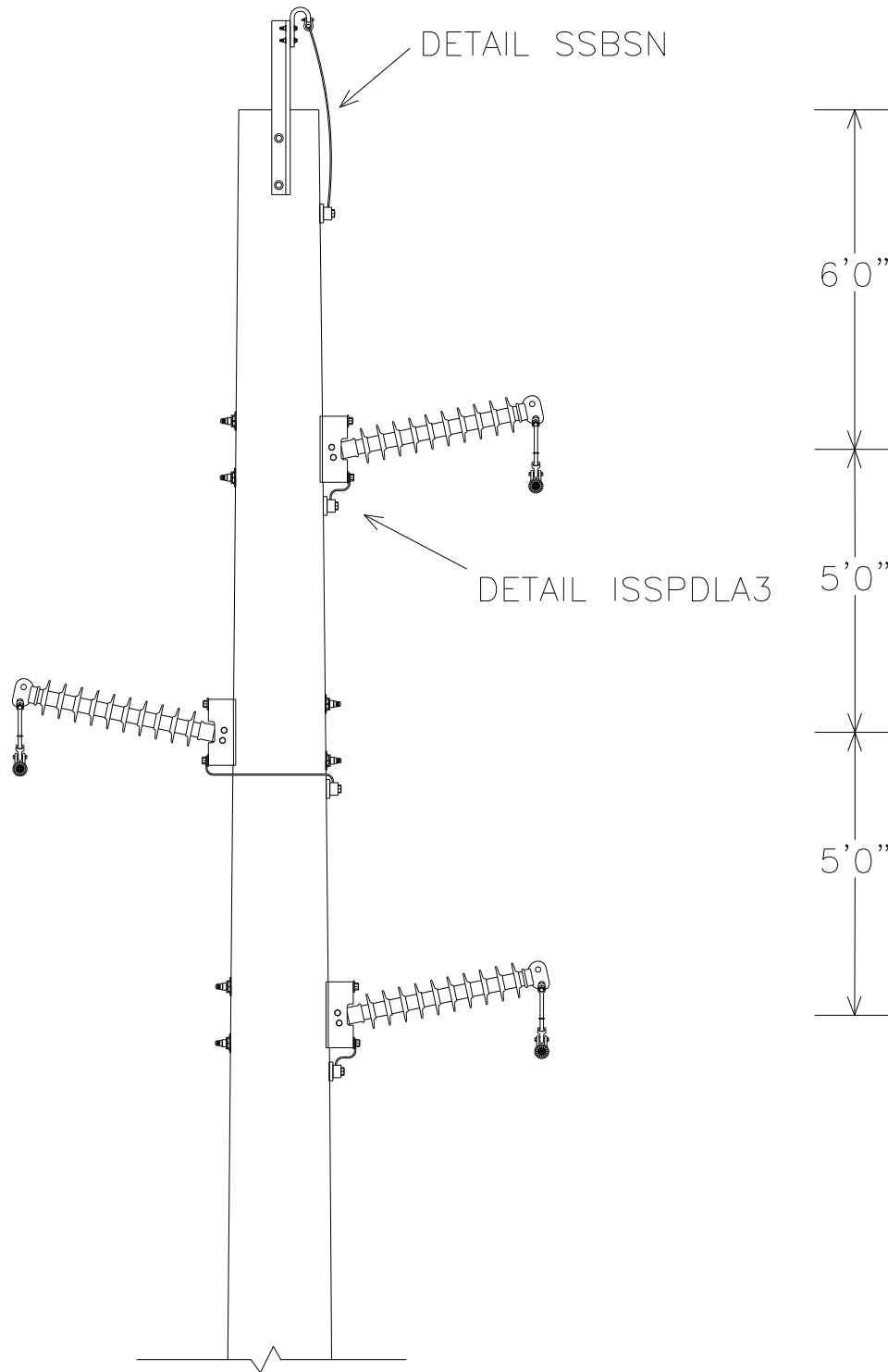
MBA3 PLATE

NO.	ITEM ID	QTY	DESCRIPTION
12,12A	BOLMS 016	5	MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED
59	NUTEY 002	5	EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED
76	WASRD 004	10	ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED

A6221

69KV SINGLE POST, DELTA, UNGUYED, ANGLE SHIELD, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A6221 PLATES

A6221 BASE

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 055	4	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	15 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A6221*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T=3/4

A6221*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

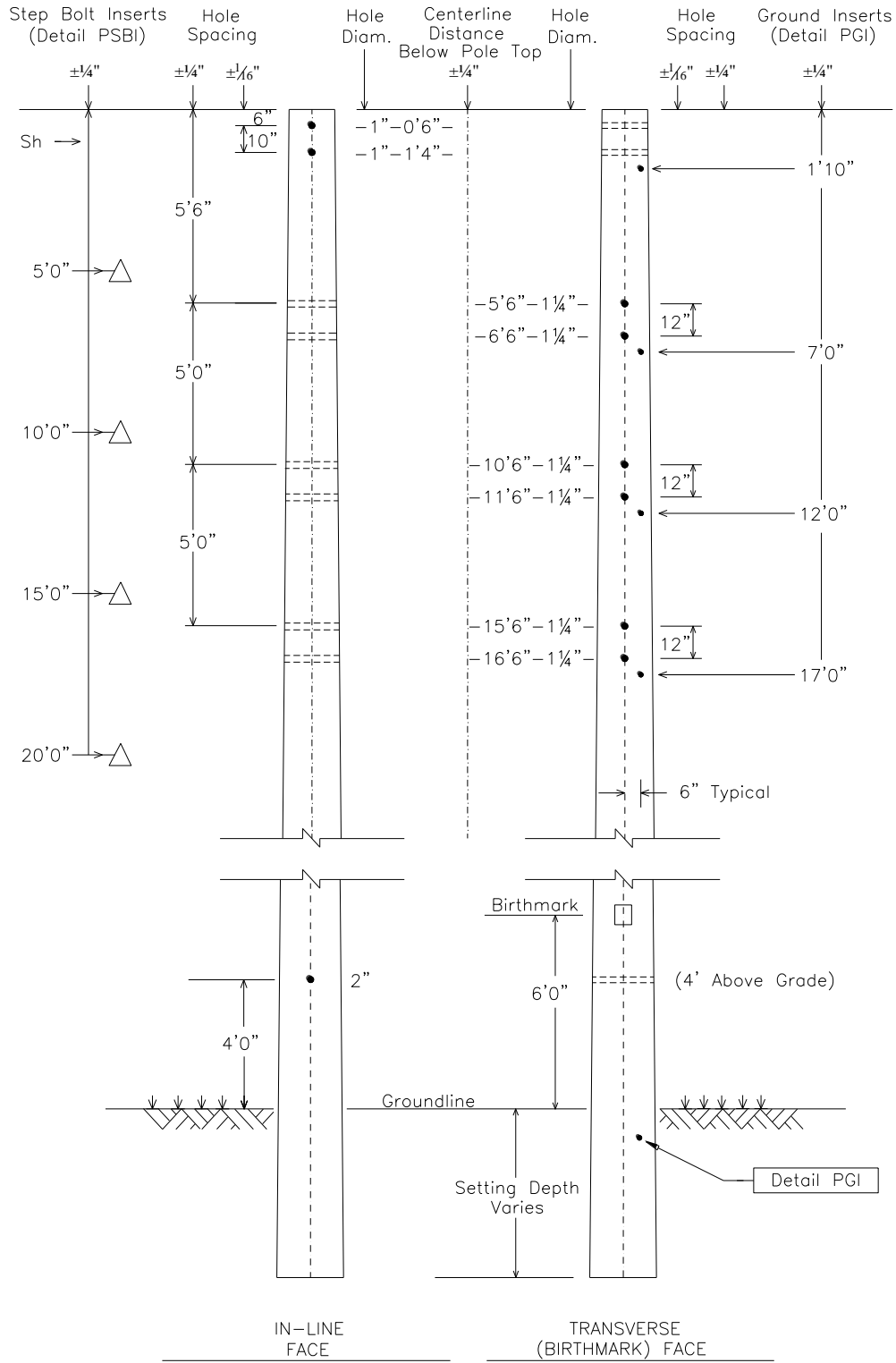
A6221*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6221*1590

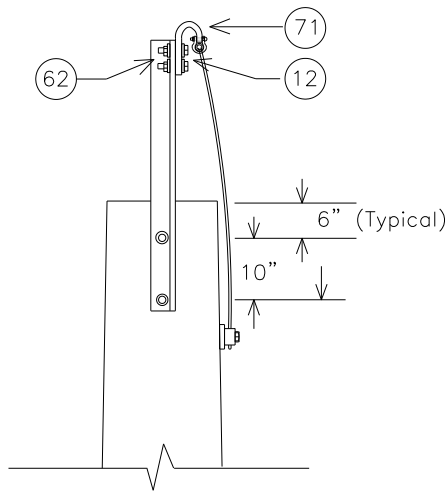
45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6221 DRILLING DETAIL

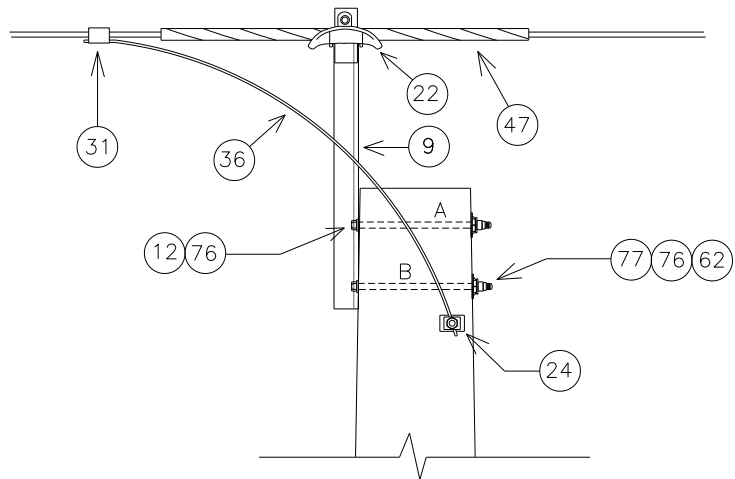


SSBSN

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH SUSPENSION CLAMP, NO GUY



In Line Face



Birthmark Face

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

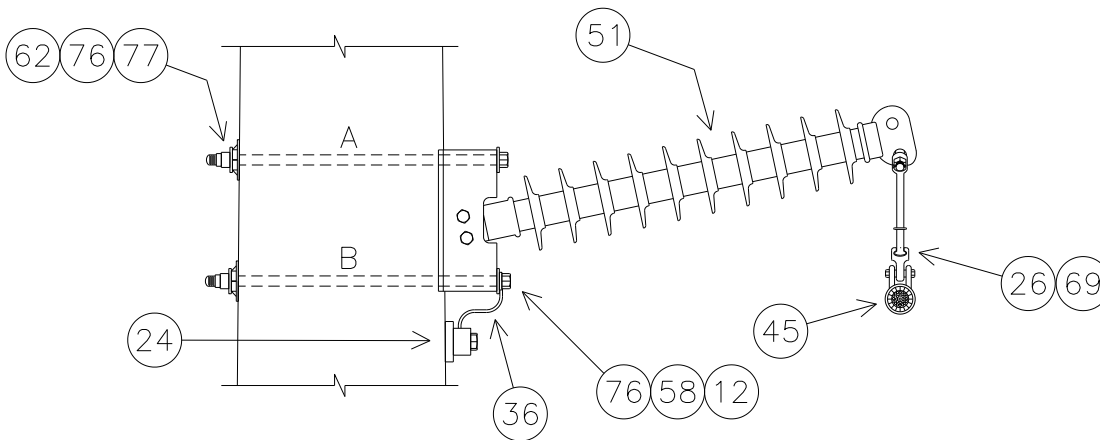
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 004	1	BAYONET FOR SHIELD WIRE, STRAIGHT 40"
12	BOLMS 001	0	MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
22	CLASU 001	1	ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
62	NUTSL 002	0	SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001
62	NUTSL 004	2	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
71	SUPSH 001	1	SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS
76	WASRD 005	4	ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPDLA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, DELTA, LONG CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.4	27.4	28.5
BOLT 'B' LENGTH (INCHES)	26.8	27.9	29.0

NOTE: BOLT CALCULATIONS ASSUME A 17 INCH POLE TOP DIAMETER.

ISSPDLA3 PLATES

ISSPDLA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 055	4	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	2	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
26	CLEHL 001	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPDLA3*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 3/4

ISSPDLA3*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPDLA3*954S

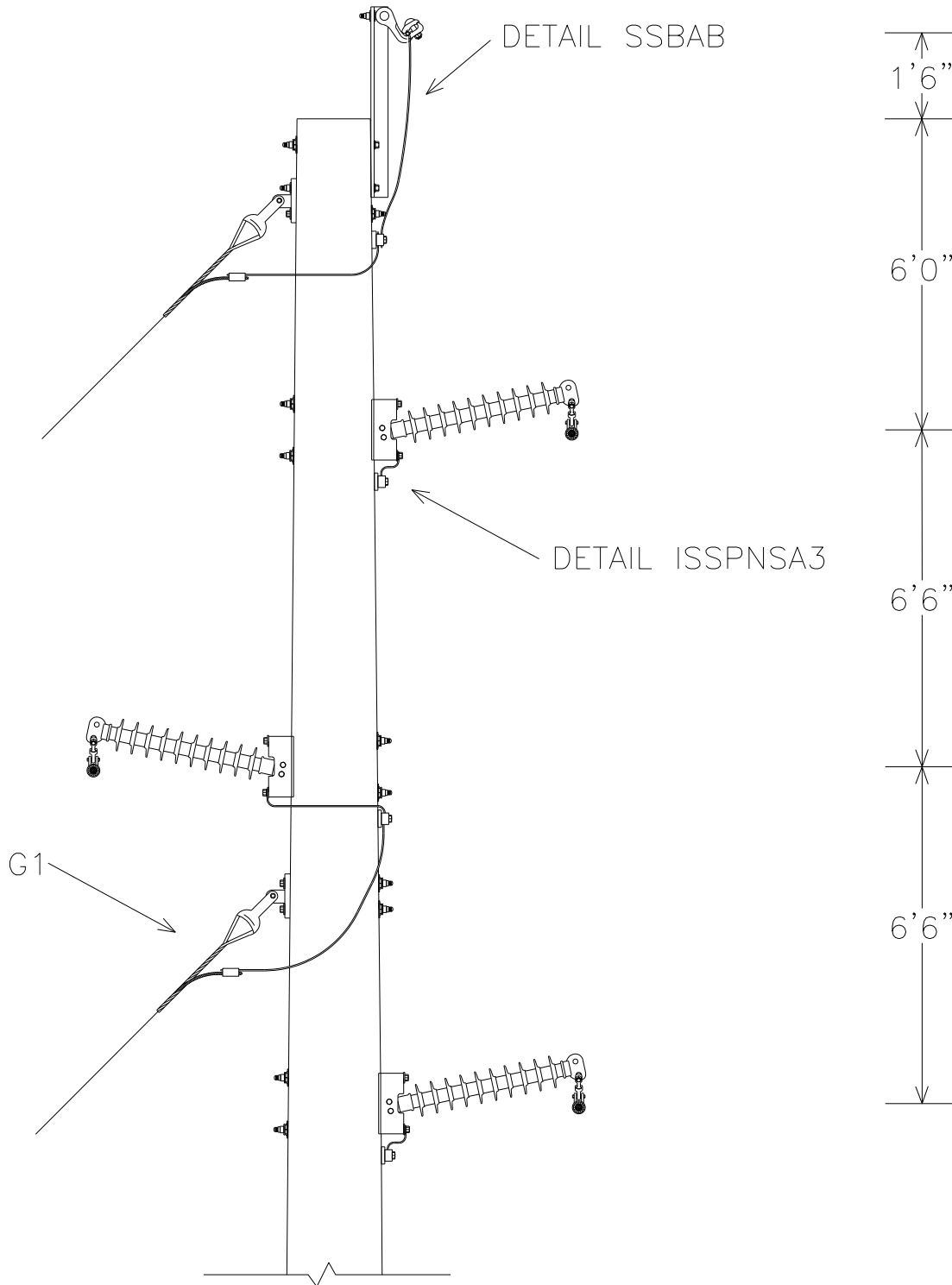
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPDLA3*1590

45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6222A

69KV SINGLE POST, DELTA, BACK GUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A6222A PLATES

A6222A BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI 007	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, PIN = 3/4", HOT DIPPED GALV.
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	18 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	8	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	2	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	16	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	8	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A6222A*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 3/4

A6222A*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

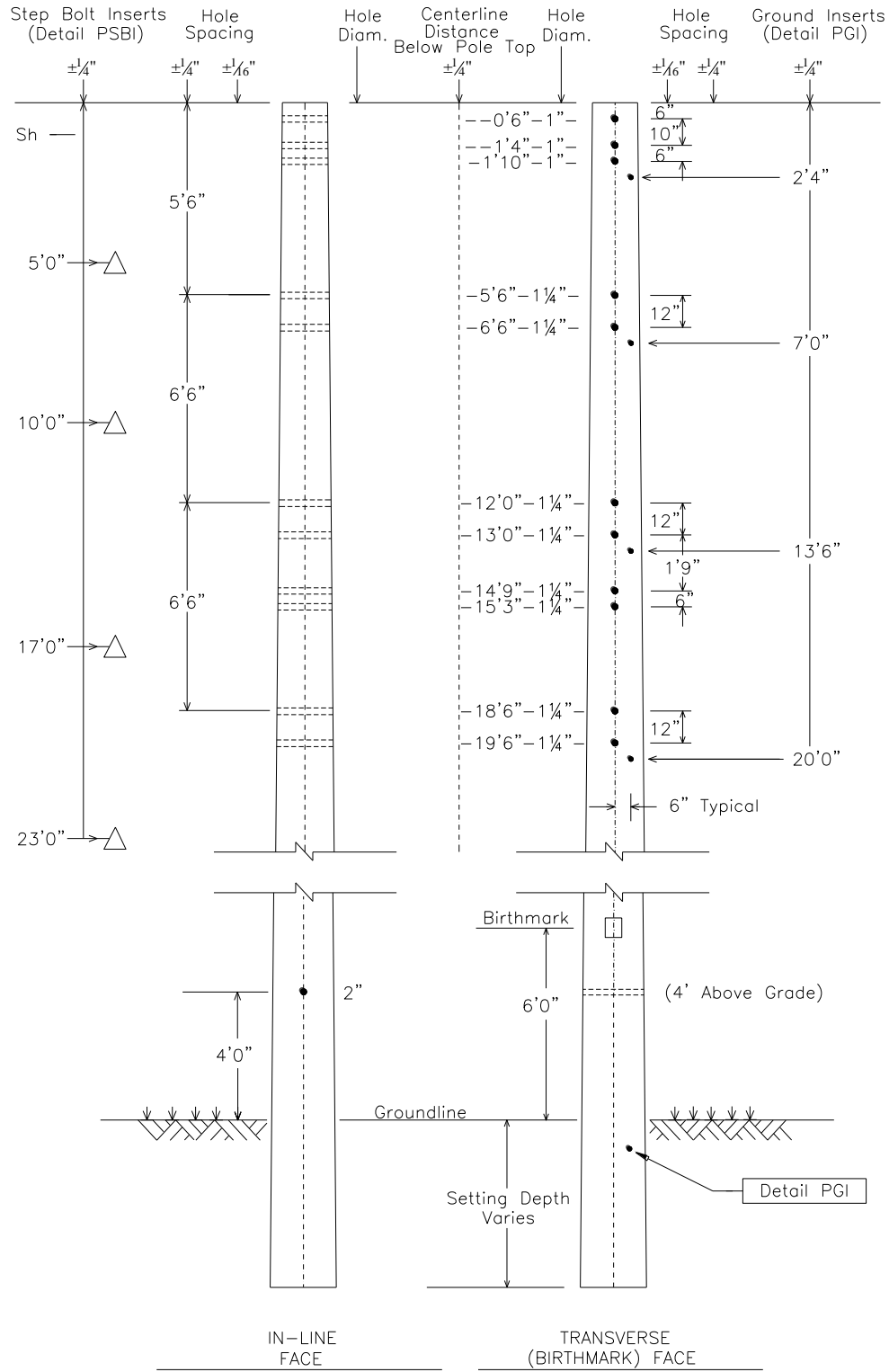
A6222A*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6222A*1590

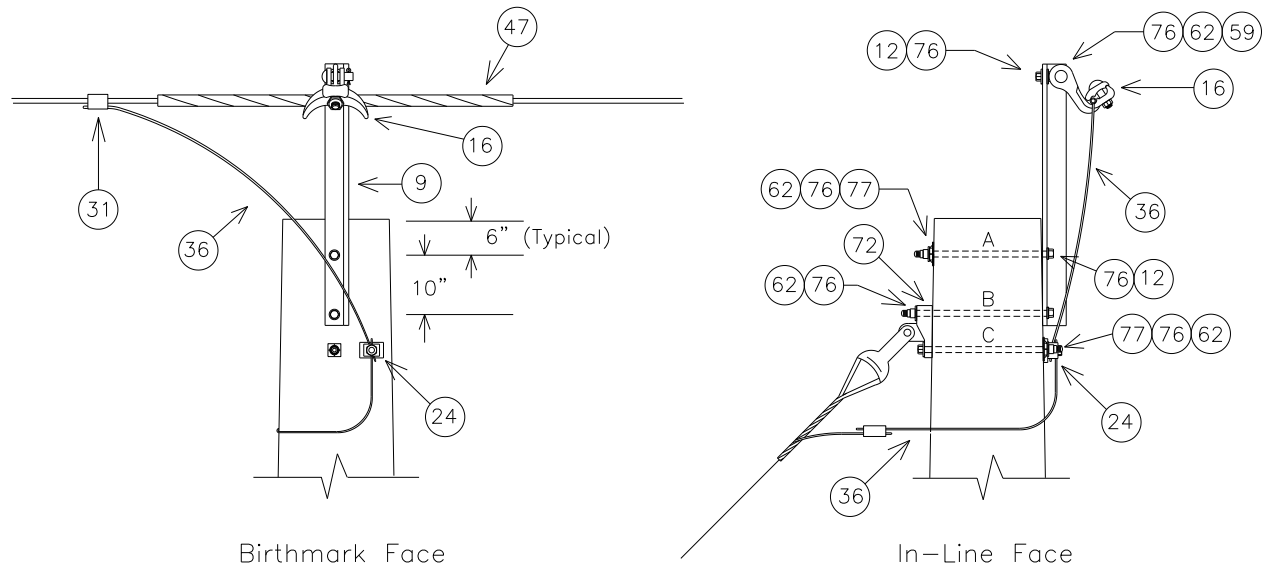
45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6222A DRILLING DETAIL



SSBAB

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

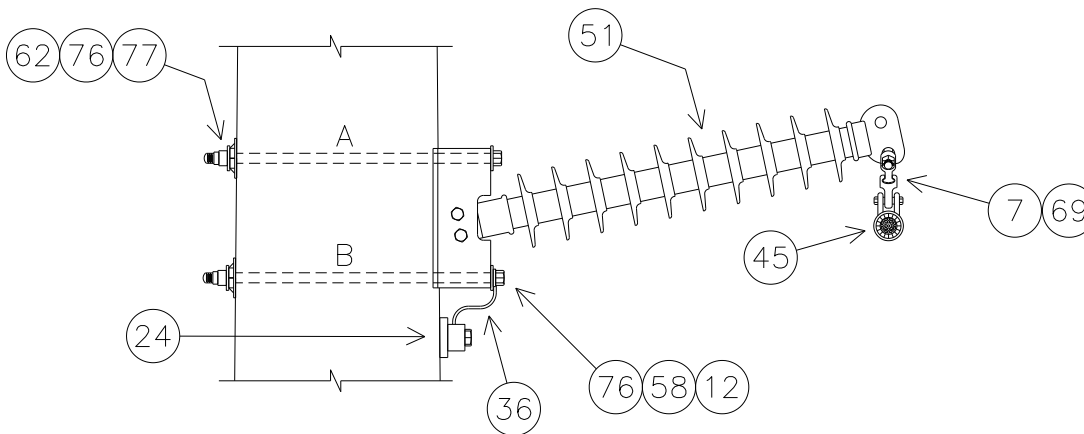
MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)	19.6
MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)	20.9
MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES)	20.3

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	1	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 040	2	MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	4	SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.
72	TEEDE 003	1	TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	8	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNSA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, NO GUY, SHORT CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.5	27.9	29.4
BOLT 'B' LENGTH (INCHES)	27.0	28.4	29.8

NOTE: BOLT CALCULATIONS ASSUME A 17 INCH POLE TOP DIAMETER.

ISSPNSA3 PLATES

ISSPNSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI 007	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, PIN = 3/4", HOT DIPPED GALV.
12	BOLMS 055	2	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	4	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNSA3*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 20,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 3/4

ISSPNSA3*954A

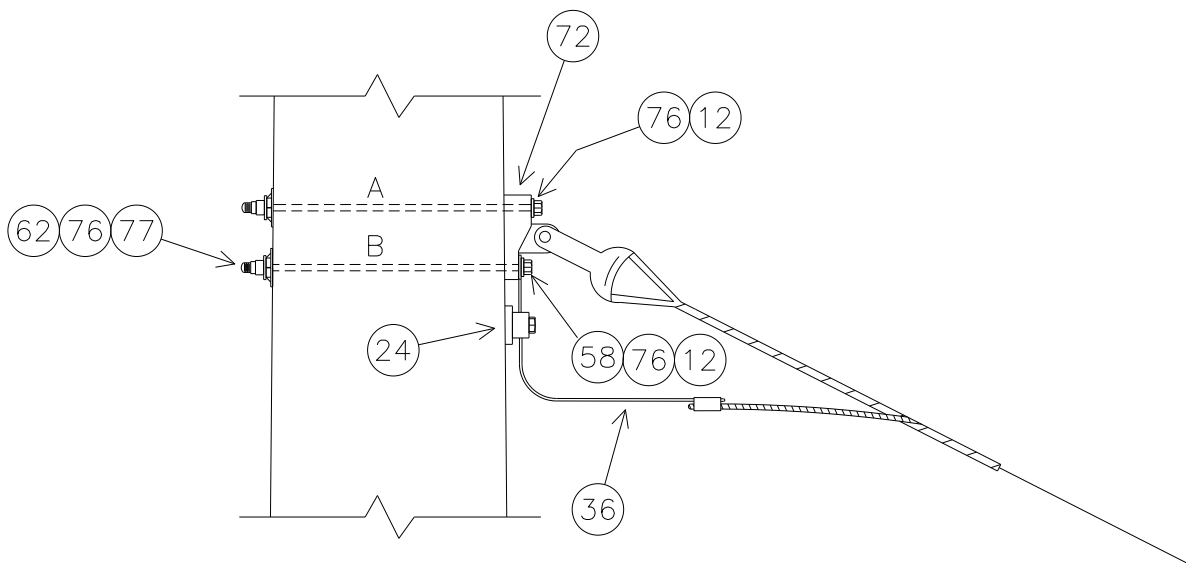
45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPNSA3*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPNSA3*1590

45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

G1**GUY**

MINIMUM REQUIRED BOLT LENGTH
(INCHES)

'A'	25.3
'B'	24.6

NOTE: BOLT CALCULATIONS ASSUMES A 17 INCH POLE TOP DIAMETER

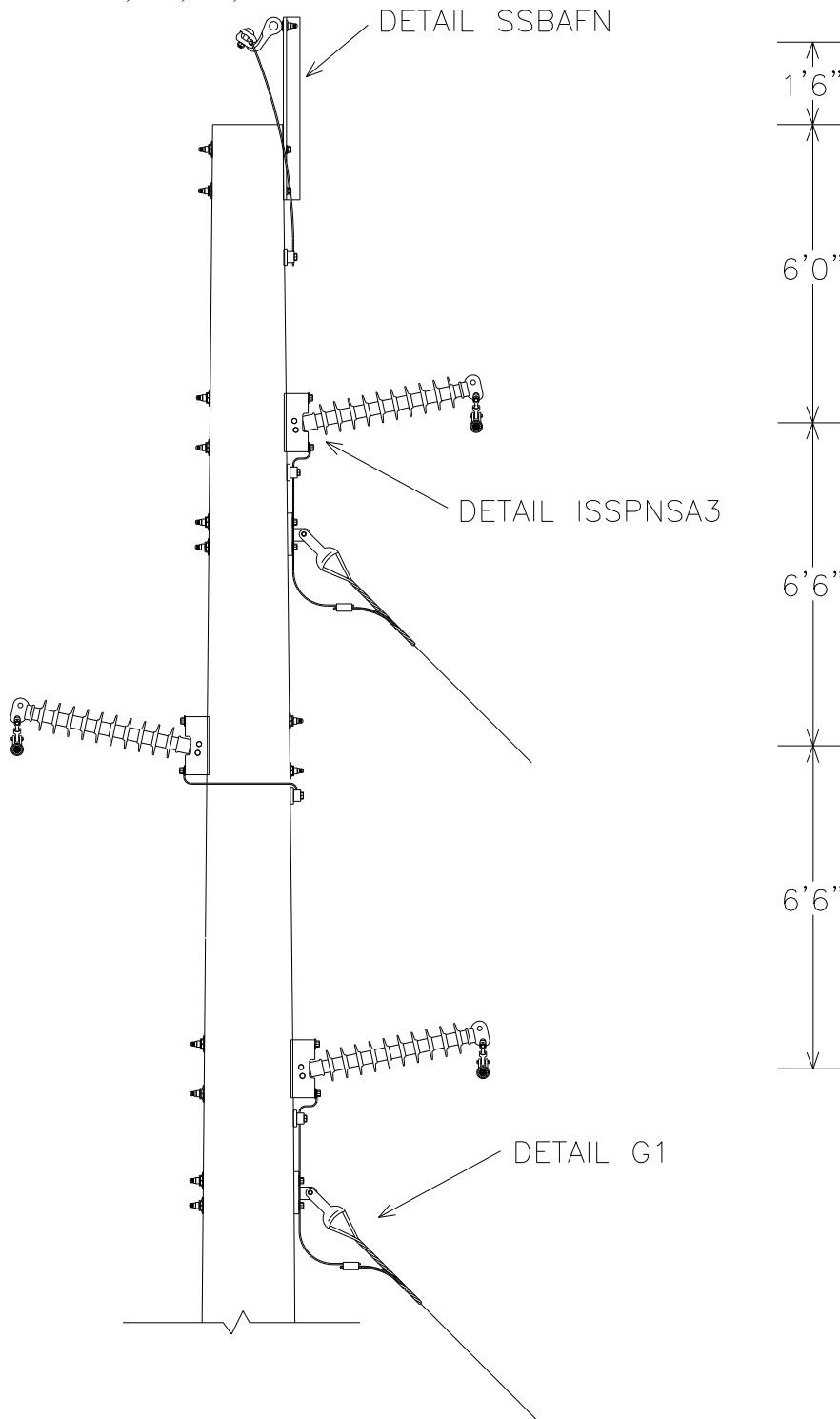
G1

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	0	PROVIDED AS PART OF POST INSULATOR MATERIALS
36	COBCO 028	3 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
62	NUTSL 005	2	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	1	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	4	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	2	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

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A6222B

69KV SINGLE POST, DELTA, FRONT GUYED, ANGLE SHIELD, 3-PHASE
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



A6222B PLATES

A6222B BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI 007	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, PIN = 3/4", HOT DIPPED GALV.
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 055	3	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	3	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	4	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	21 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
62	NUTSL 005	10	SQUARE LOCK NUT FOR 7/8" BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	2	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
76	WASRD 006	20	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"
77	WASSC 002	10	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

A6222B*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 3/4

A6222B*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

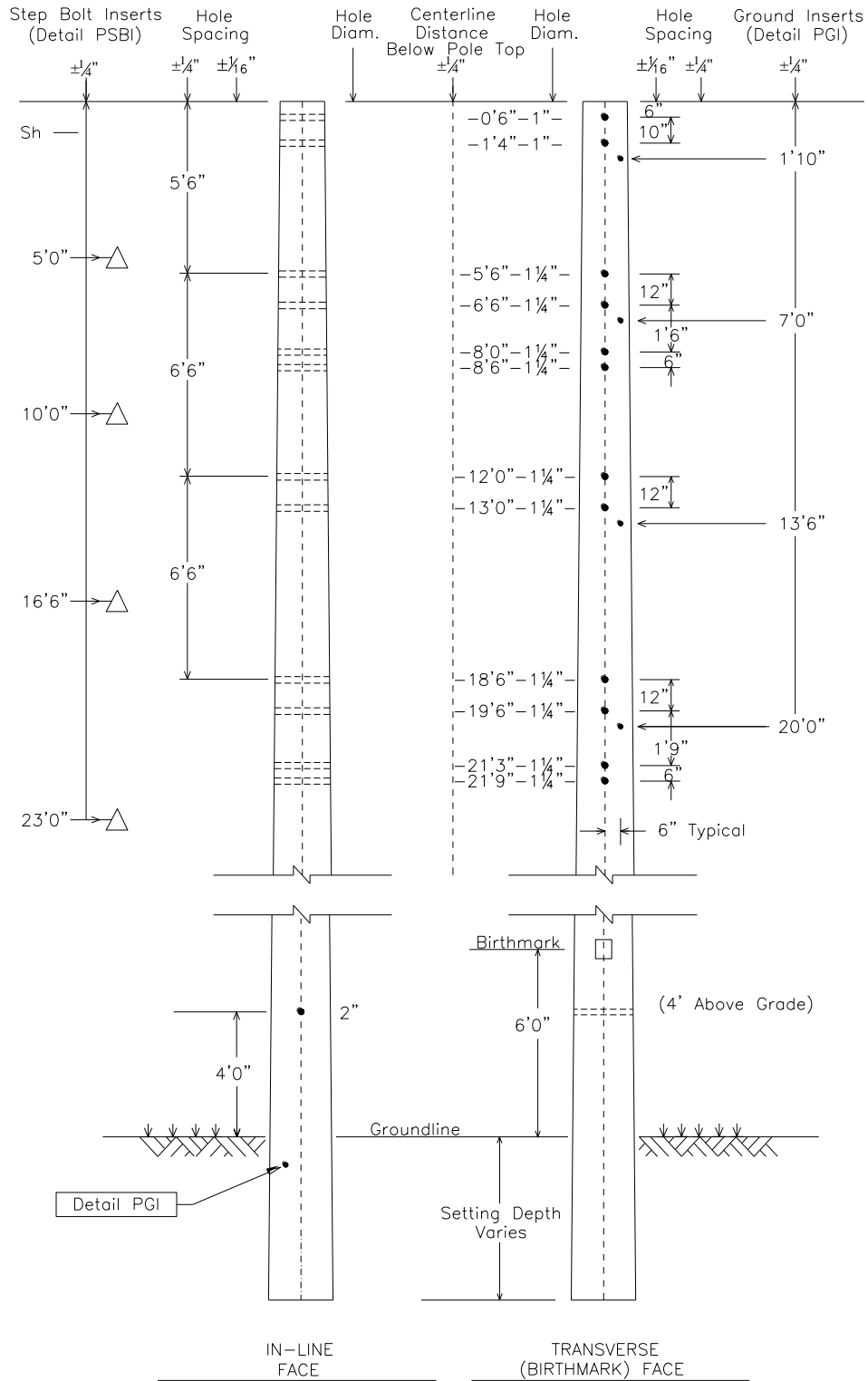
A6222B*954S

45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6222B*1590

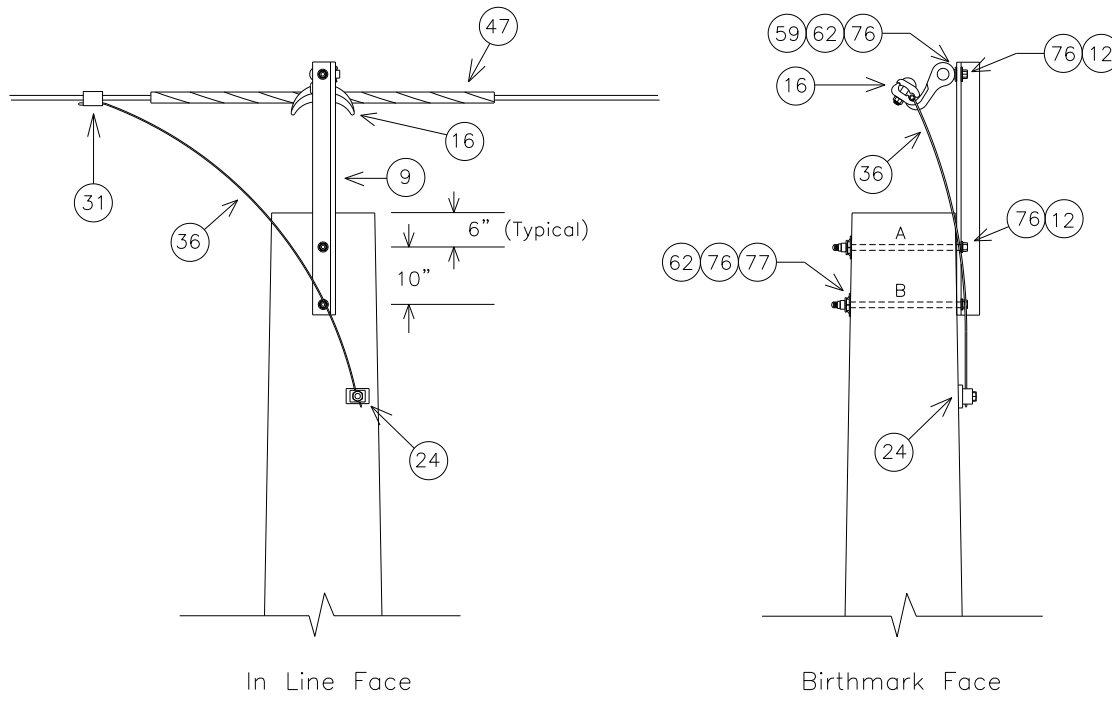
45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

A6222B DRILLING DETAIL



SSBAFN

SHIELD FOR SPUN CONCRETE POLES
BAYONET WITH ANGLE CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

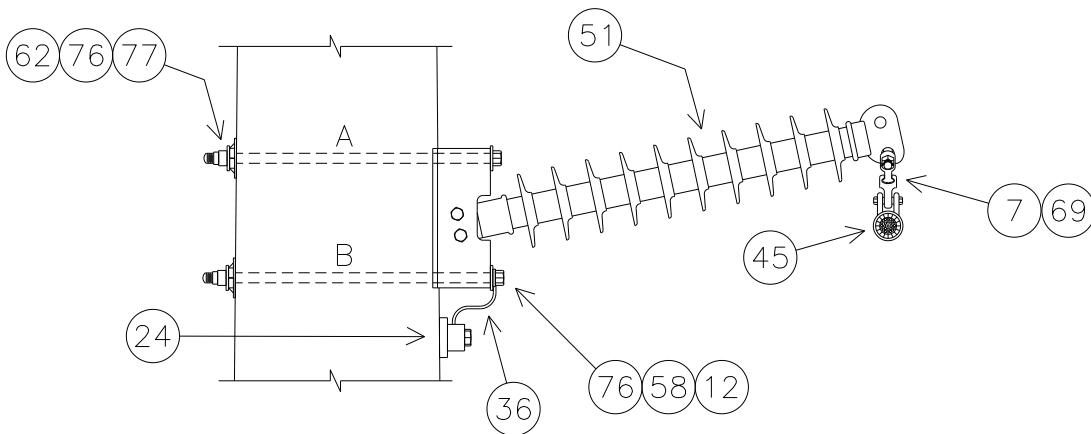
	'A'	'B'
MINIMUM REQUIRED BOLT LENGTH (INCHES)	19.6	19.8

NOTE: BOLT CALCULATIONS ASSUME A 17 INCH POLE TOP DIAMETER;

NO.	ITEM ID	QTY	DESCRIPTION
9	BAYSW 003	1	BAYONET FOR SHIELD WIRE, CORNER 40"
12	BOLMS 032	1	MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 039	2	MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
16	CLAA 001	1	ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#
24	CLATG 001	1	CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.
31	CNNCP 002	1	COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)
47	GUALI 001	1	ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"
59	NUTEY 003	1	NUT EYE FOR 3/4" BOLT
62	NUTSL 004	3	SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED
76	WASRD 005	6	ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED
77	WASSC 001	2	SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNSA3

INSULATOR FOR SPUN CONCRETE POLES
 SINGLE POST, NO GUY, SHORT CLEVIS, 69KV, 3-PHASE
 CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

SUBSTRUCTURE	Top	Mid	Bottom
BOLT 'A' LENGTH (INCHES)	26.5	27.9	29.4
BOLT 'B' LENGTH (INCHES)	27.0	28.4	29.8

NOTE: BOLT CALCULATIONS ASSUME A 17 INCH POLE TOP DIAMETER.

ISSPNSA3 PLATES

ISSPNSA3 BASE

NO.	ITEM ID	QTY	DESCRIPTION
7	BALFI 007	3	BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, PIN = 3/4", HOT DIPPED GALV.
12	BOLMS 055	3	MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 073	3	MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	3	CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
51	INSHP 020	3	HORIZONTAL POST INSULATOR, 69KV, L = 45 INCHES, GAIN BASE, 12 DEGREE RISE
58	LUGGR 002	3	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	6	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
76	WASRD 006	12	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	6	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"

ISSPNSA3*556S

45	GRISA 001	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 556 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 004	3	SOCKET - EYE, STENGTH = 20,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 3/4

ISSPNSA3*954A

45	GRISA 003	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPNSA3*954S

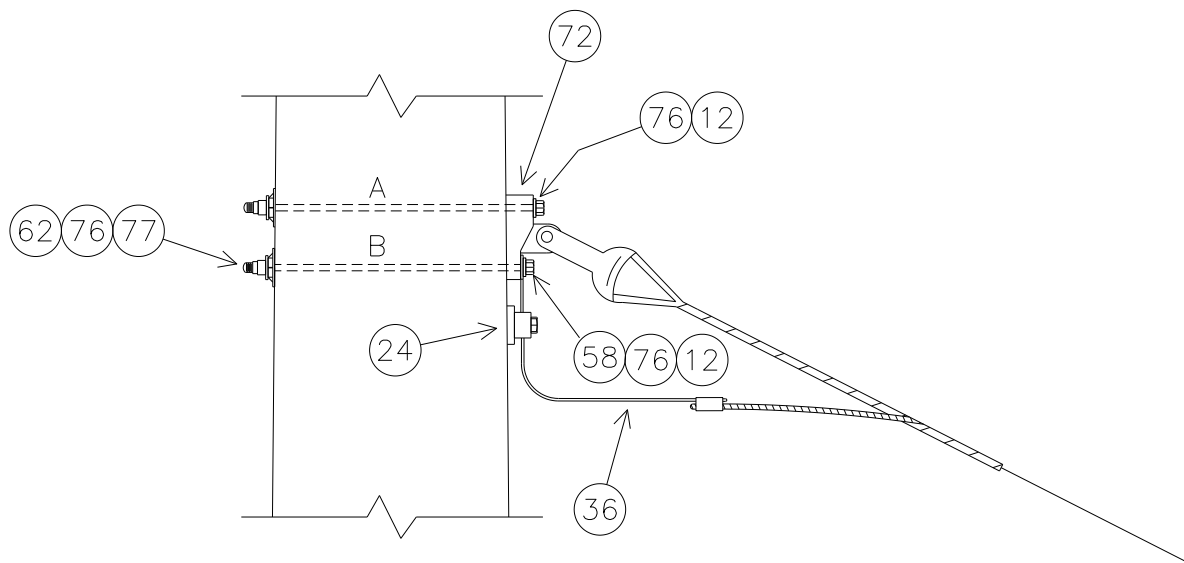
45	GRISA 004	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

ISSPNSA3*1590

45	GRISA 005	3	ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ASCR, 82 INCHES, 1 3/16" GAP, 5/8" PIN
69	SOCEY 003	3	SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. T= 1 1/16

G1

LIGHT GUY (QUANTITY = 2)



SUBSTRUCTURE	Top	Bottom
BOLT 'A' LENGTH (INCHES)	23.0	25.8
BOLT 'B' LENGTH (INCHES)	22.1	25.0

NOTE: BOLT CALCULATIONS ASSUME A 17 INCH POLE TOP DIAMETER.

G1

NO.	ITEM ID	QTY	DESCRIPTION
12	BOLMS 053	2	MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
12	BOLMS 054	2	MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED
24	CLATG 001	0	GROUND CLAMP, USE CLAMP PROVIDED WITH INSULATORS
36	COBCO 028	6 ft	#4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN
58	LUGGR 002	1	LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION
62	NUTSL 005	4	SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED
72	TEEDE 003	2	TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#
76	WASRD 006	8	ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED
77	WASSC 002	4	SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"