

VALMONT®

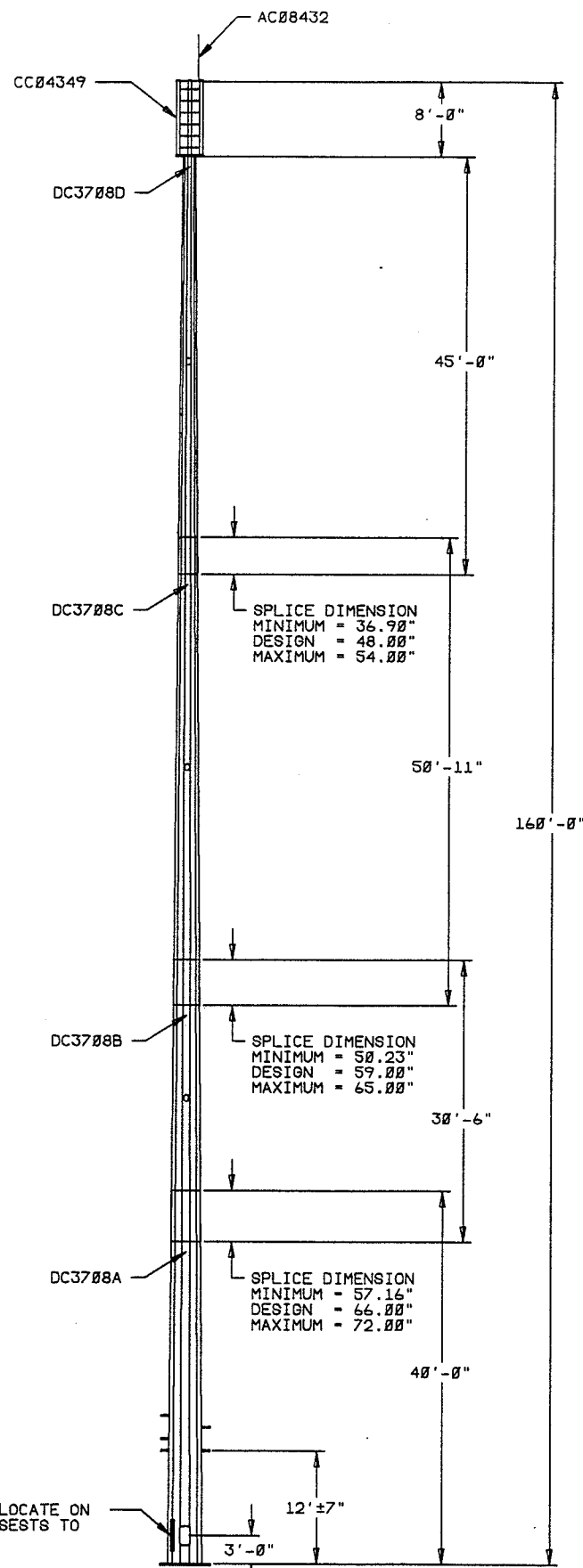
VALMONT INDUSTRIES, INC.
WEST HIGHWAY 275 - P.O. BOX 358
VALLEY, NEBRASKA 68064
PHONE: 1-800-VALMONT (825-6668)
ASSOCIATE DRAFTER: BRAD BRAMLEY x3868
SENIOR PROFESSIONAL ENGINEER: GREG TILLOTSON x3845

COMMUNICATION POLE RECORD DRAWINGS

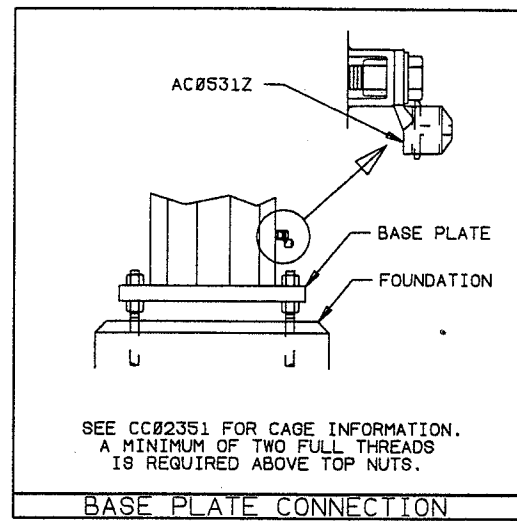
INDEX OF DRAWINGS

DESCRIPTION	DRAWING #	DESCRIPTION	DRAWING #
POLE ASSEMBLY	DC3708Z	BASE PLATE	BC30935
SECTION ASSEMBLY	DC3708A	TOP CAGE PLATE	BC30936
SECTION ASSEMBLY	DC3708B	BOTTOM CAGE PLATE	BC30937
SECTION ASSEMBLY	DC3708C	GROUND BAR KIT	BC1874Z
SECTION ASSEMBLY	DC3708D	SAFETY CLIMB ASSY	BCA160Z
ANCHOR BOLT CAGE ASSEMBLY	CC02351	GROUND LUG KIT	AC0531Z

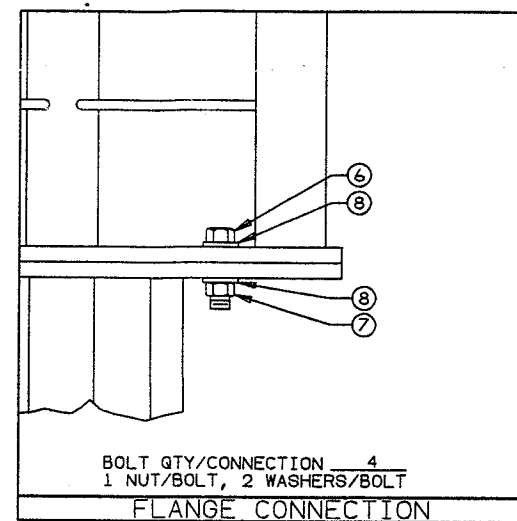
BELLSOUTH PERSONAL COMMUNICATIONS
VALMONT ORDER# 14447-96
BELLSOUTH PART NUMBER 383-VC160
SITE: 174-088, POLE HEIGHT: 160'



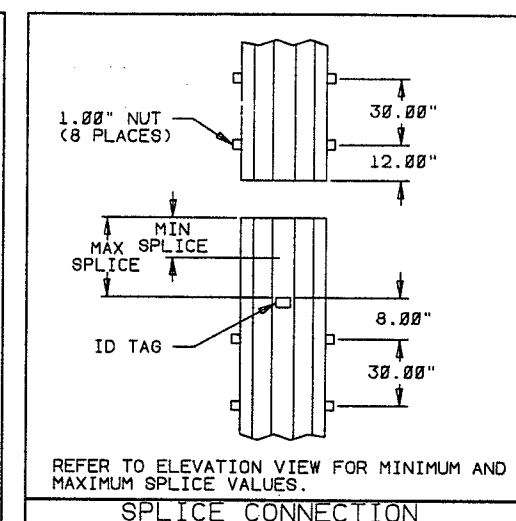
ELEVATION VIEW
SEE FABRICATION DRAWINGS
FOR ADDITIONAL DETAILS



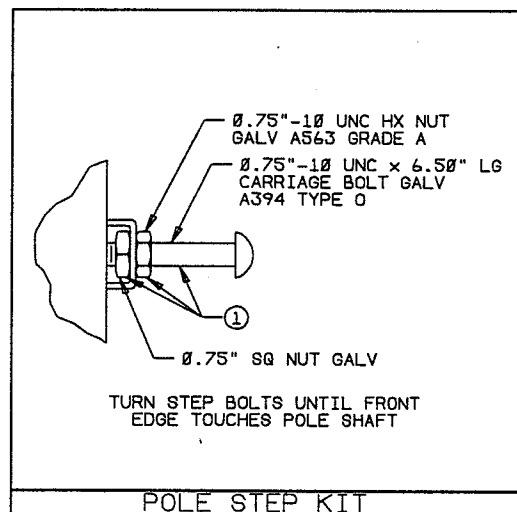
BASE PLATE CONNECTION



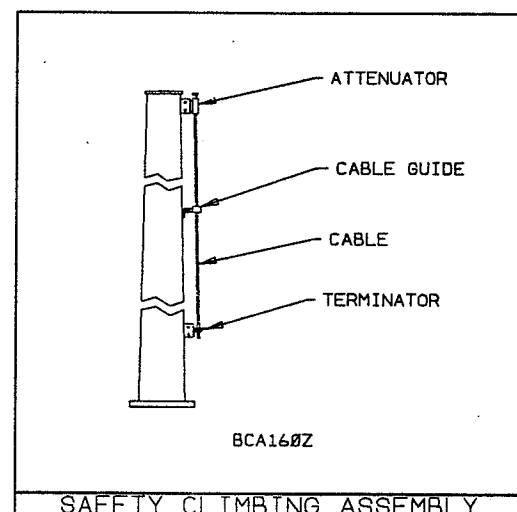
FLANGE CONNECTION



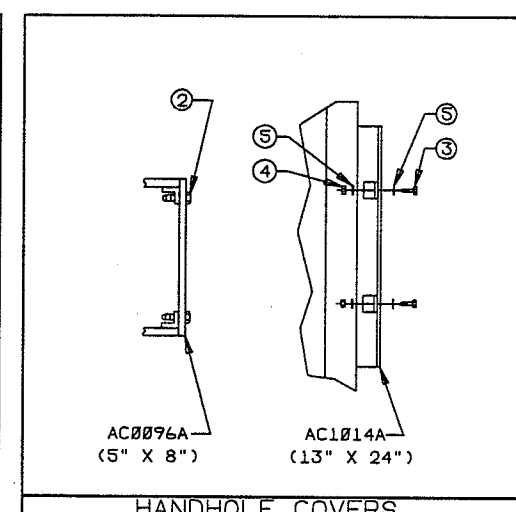
SPLICE CONNECTION



POLE STEP KIT



SAFETY CLIMBING ASSEMBLY



HANDHOLE COVERS

- NOTES:
- POLE SHAFT-GOVERNING REACTIONS:
MOMENT - 18,638 IN-KIPS
SHEAR - 17,155 #
VERTICAL - 17,740 #
 - COMPONENT IDENTIFICATION: TAG LOCATIONS ARE INDICATED BY CALLOUTS ON DRAWING. "TAG MARK" IN BILL OF MATERIAL SHOWS FIRST 4 DIGITS ON EACH TAG. SUBSEQUENT DIGITS WILL INDICATE SEQUENCE OF MANUFACTURER.
 - ASSEMBLY AND FRECTION GUIDELINES: SEE VALMONT COMMUNICATION POLE INSTALLATION GUIDELINE I012.
 - SLIP JOINT JACKING FORCE
MINIMUM - 25,000#
MAXIMUM - 90,000#
 - WEIGHT: WEIGHT IN TITLE BLOCK IS TOTAL STRUCTURE WEIGHT EXCLUDING ANCHORAGE.
 - FINISH: GALVANIZED PER ASTM A-123.
 - POLE DESIGN CONFORMS TO EIA/TIA-222-F FOR:
80 MPH WIND WITH NO ICE
69 MPH WIND WITH 1/2" ICE.
 - DESIGN LOADING:
1-LIGHTNING ROD @ 160' ELEV.
1-DUAL LIGHTING KIT @ 160' ELEV.
3-SMART BTS ANTENNAS MOUNTED @ 156' ELEV.
1-PCS ANTENNA MOUNT @ 152' ELEV.

BILL OF MATERIAL (SHIPPING SEQ.-1 FOR ALL)				
VALMONT PART NUMBER	DESCRIPTION	UNIT WEIGHT (LBS)	QTY PER STR	
DC3 708A	SECTION ASSEMBLY	7,800	1	
DC3 708B	SECTION ASSEMBLY	3,100	1	
DC3 708C	SECTION ASSEMBLY	4,150	1	
DC3 708D	SECTION ASSEMBLY	2,150	1	
CC0 2351	CAGE ASSEMBLY	2,876	1	
CC0 4349	PCS ANTENNA MOUNT	604	1	
---	NOTE SAFETY CLIMB ASSY (BCA160Z)	57	1	
---	NOTE GROUND BAR KIT (BC1874Z)	13	2	
---	NOTE GROUND LUG KIT (AC0531Z)	1	3	
MISCELLANEOUS				
AC0096A	HANDHOLE COVER PLATE (5 X 8)	3	3	
AC1014A	HANDHOLE COVER PLATE (13 X 24)	23	3	
AC08432	5/8" DIA X 5' LIGHTNING ROD	5	1	

ITEM NO.	VALMONT PART NUMBER	DESCRIPTION					QTY PER STR		
		HARDWARE SIZE (IN)				GENERAL		FINISH	ASTM SPEC
		BOLT DIA	LONG	NUT	WSHR				
1	2136A					STEP KIT	HDGV	-	131
2	164035	0.25	0.75			SCREW	S.S.	A410	7
3	163022	0.25	1.00			SCREW	S.S.	A276	13
4	333038			0.25		LOCK	S.S.	-	13
5	335010			0.25		FLAT	S.S.	-	26
6	163187	1.50	4.25				HDGV	A325	4
7	133022			1.50			HDGV	A563	4
8	142052			1.50			HDGV	F436	8

* PER ASTM A325-91C, EXCLUDE SECTIONS 6.3 & 9.2

DUPLICATE DRAWING DISTRIBUTION
BRENHAM TULSA
DWG SIZE D CLASS CODE (1) 1 CLASS NO. (3) 450

REV ID DATE REV BY CHK BY REVISION DESCRIPTION

ORDER NO. CUSTOMER BILLSOUTH PERSONAL COMMUNICATIONS

DESCRIPTION 160' MONOPOLE

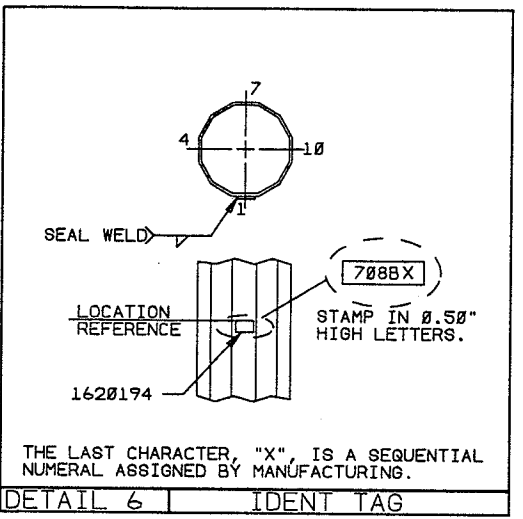
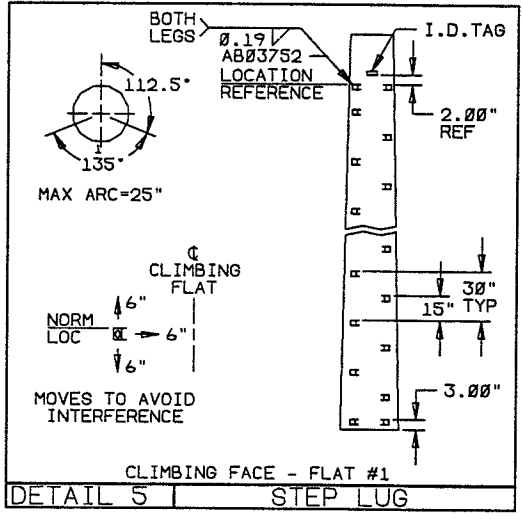
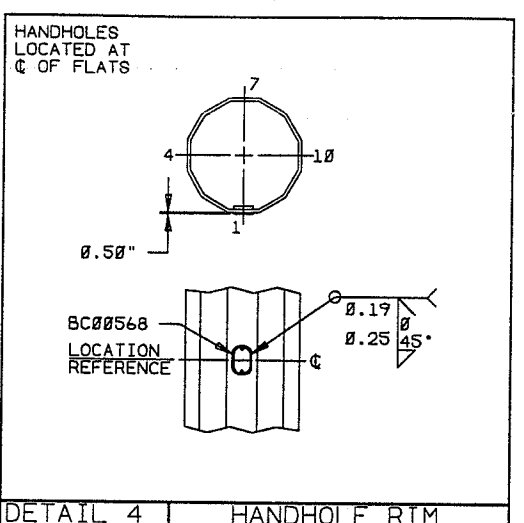
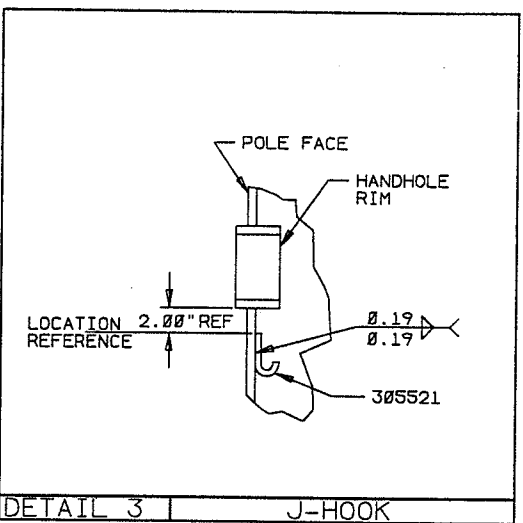
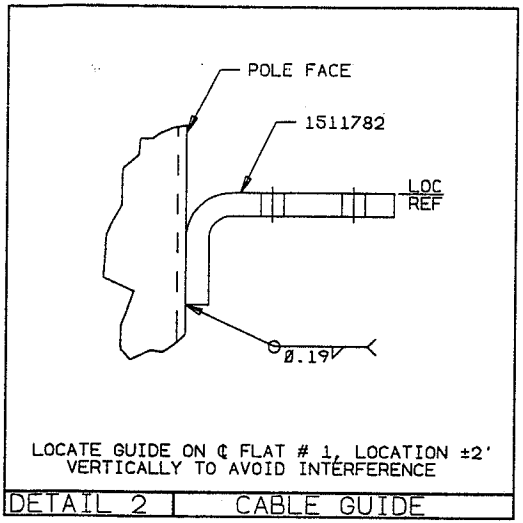
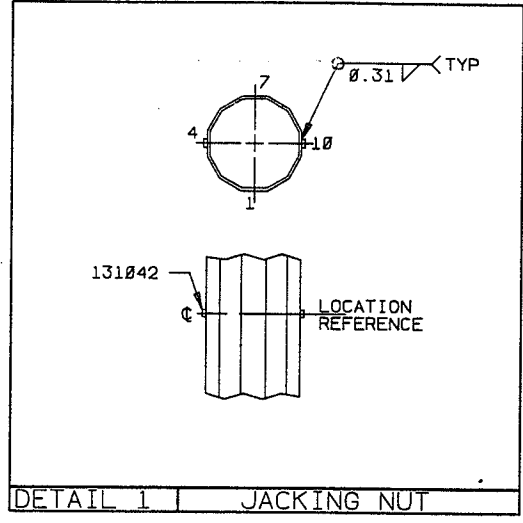
DWG NO. DC3708Z

VALMONT

SHAFT INFO					
SEC	LENGTH	BASE OD	TOP OD	THK	MAT
A	40'-00"	45.00"	37.00"	0.313"	S-22
B	30'-06"	38.61"	32.50"	0.250"	S-22
C	50'-11"	33.99"	23.80"	0.250"	S-22
D	45'-00"	24.98"	15.98"	0.188"	S-22

		LOCATION DIMENSION			
		FROM LARGE END	FROM SMALL END	TOLERANCES BLANK = M-1	DETAIL
			0'-6.00"		7
			5'-5.00"		6
			5'-8.00"		5
			6'-1.00"		1
					1
			15'-0.00"		4
			15'-6.50"		3
					1
			28'-5.00"		2
			29'-6.00"		1

NOTES:
 1. FLATS 1 AND 12 ARE ADJACENT TO SEAM WELD.
 2. ALL CROSS SECTION VIEWS ARE FROM SMALL END OF TUBE.
 3. POLE TUBE DATA REF. MATERIAL-S-22
 TUBE END OD (IN) THICKNESS
 LENGTH LARGE SMALL (IN)
 30'-6.00" 38.61 32.50 0.250
 TUBE DIAMETERS MEASURED ACROSS FLATS.



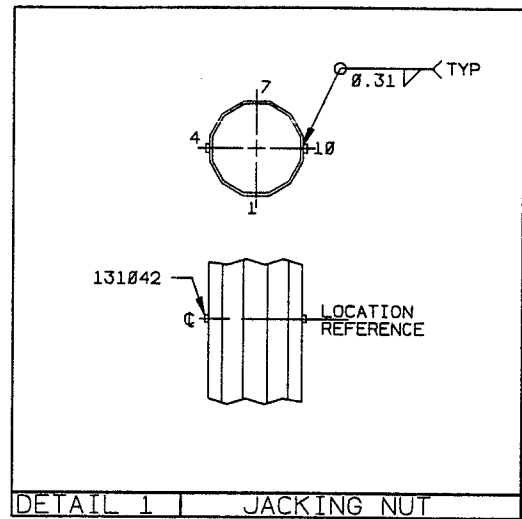
FOR A.L.S. ONLY
 2.00" DIA HOLE BURNED ON C FLAT #4. CHAMFER UPPER HALF OF HOLE AND TOP OF FLAT #4 WITH 0.06" X 45° CHAMFER ON BOTH SIDES.
 FOR ALL OTHER SITES
 2.63" DIA HOLE BURNED ON C FLATS #3 & #5. CHAMFER UPPER HALF OF HOLES AND TOP OF FLATS #3, #4 & #5 WITH 0.06" X 45° CHAMFER ON BOTH SIDES.
 DETAIL 7 GALV HANGER HOLES

BILL OF MATERIAL (SHIPPING SEQ=0 FOR ALL)		
VALMONT PART NO	DESCRIPTION	QTY PER ASSY
BC30931	SHAFT	1
131042	1.00" NUT	8
1511782	CABLE GUIDE	1
305521	J-HOOK	1
BC00568	HANDHOLE RIM	1
AB03752	STEP LUG	22
1620194	IDENT TAG	1

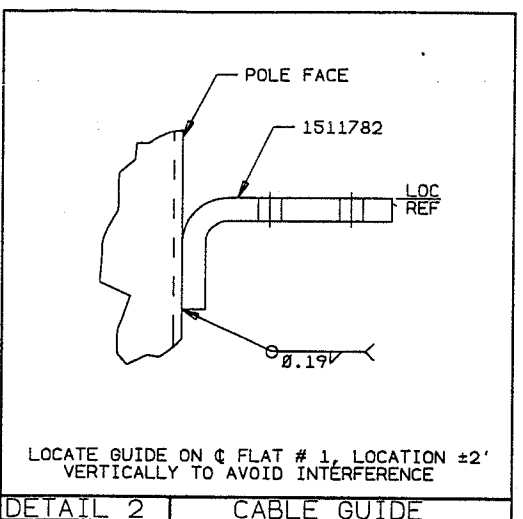
DRAWN		ENGR		DATE		SCALE	
BWB	GRT			11/18/96		NONE	
P.A. CHK				SHOP CHK			
				TDJ 11/19/96			
OTHER SPECIFICATIONS							
F-1, M-1, W-24							
REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION			
ORDER NO.	CUSTOMER			DESCRIPTION			DWG NO.
	BELLSOUTH PERSONAL COMMUNICATIONS			SECTION ASSEMBLY			DC3708B



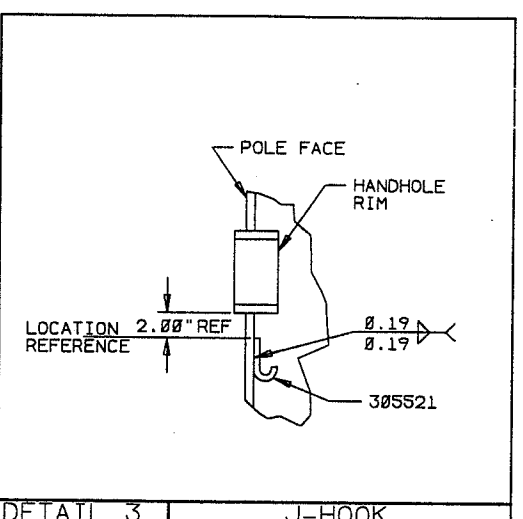
		LOCATION DIMENSION			
		FROM LARGE END	FROM SMALL END	TOLERANCES BLANK = M-1	DETAIL
			0'-6.00"		7
			4'-6.00"		6
			4'-9.00"		5
			5'-2.00"		1
					1
			23'-0.00"		2
			25'-0.00"		4
			25'-6.50"		3
					1
			49'-8.00"		2
			49'-11.00"		1



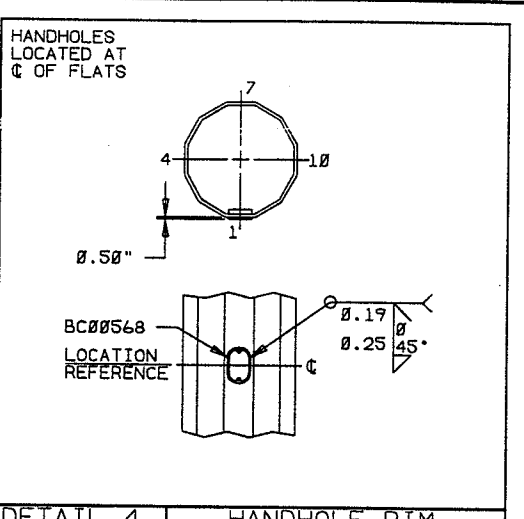
DETAIL 1 | JACKING NUT



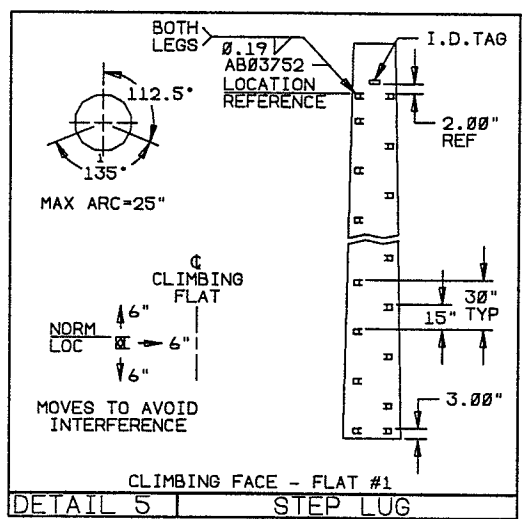
DETAIL 2 | CABLE GUIDE



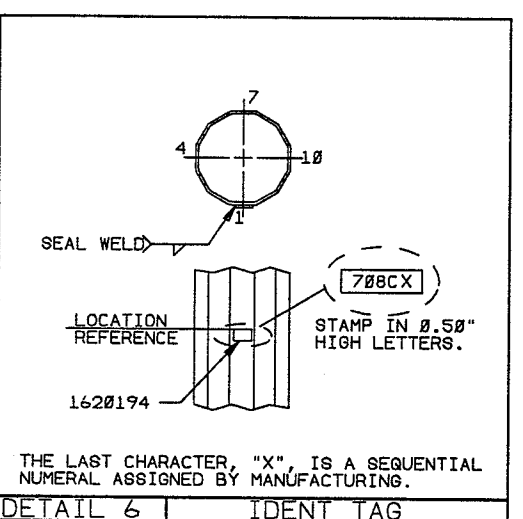
DETAIL 3 | J-HOOK



DETAIL 4 | HANDHOLE RIM



DETAIL 5 | STEP LUG



DETAIL 6 | IDENT TAG

FOR A.L.S. ONLY
 2.00" DIA HOLE BURNED ON C FLAT #4. CHAMFER UPPER HALF OF HOLE AND TOP OF FLAT #4 WITH 0.06" X 45° CHAMFER ON BOTH SIDES.

FOR ALL OTHER SITES
 2.63" DIA HOLE BURNED ON C FLATS #3 & #5. CHAMFER UPPER HALF OF HOLES AND TOP OF FLATS #3, #4 & #5 WITH 0.06" X 45° CHAMFER ON BOTH SIDES.

DETAIL 7 | GALV HANGER HOLES

NOTES:
 1. FLATS 1 AND 12 ARE ADJACENT TO SEAM WELD.
 2. ALL CROSS SECTION VIEWS ARE FROM SMALL END OF TUBE.
 3. POLE TUBE DATA REF. MATERIAL-S-22

TUBE LENGTH	END OD (IN)	THICKNESS (IN)
50'-11.00"	33.99	23.80
		0.250

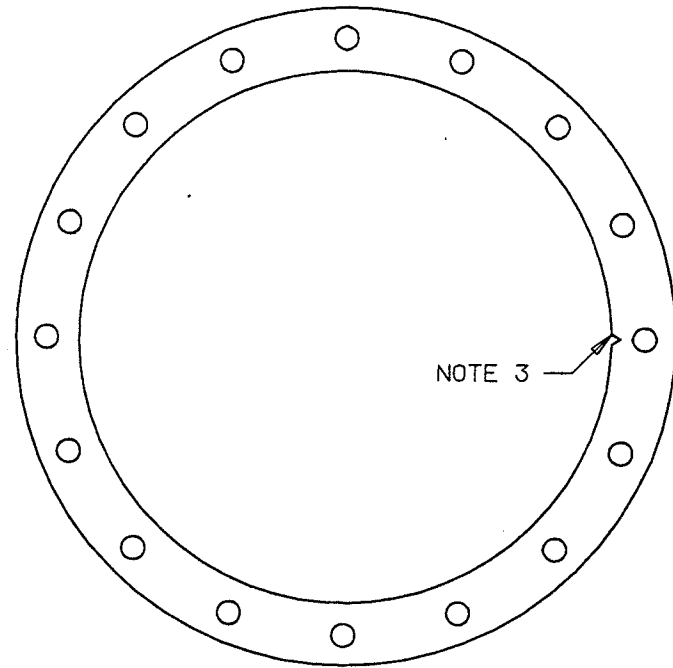
TUBE DIAMETERS MEASURED ACROSS FLATS.

BILL OF MATERIAL (SHIPPING SEQ=0 FOR ALL)		
VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
BC30932	SHAFT	1
131042	1.00" NUT	8
1511782	CABLE GUIDE	2
305521	J-HOOK	1
BC00568	HANDHOLE RIM	1
AB03752	STEP LUG	39
1620194	IDENT TAG	1

DUPLICATE DRAWING DISTRIBUTION		IME_SEC_ASSY_34"BD_24"TD_50'-11"LG#1444Z	
BRENHAM TULSA		DWG SIZE D CLASS CODE (1) 1 CLASS NO. (3) 400	
DRAWN	ENGR	DATE	SCALE
BWB	GRT	11/18/96	NONE
P.A. CHK	SHOP CHK	TDJ	11/19/96
OTHER SPECIFICATIONS			
F-1,M-1,W-24			
REV ID	DATE	REV BY	CHK BY
MATERIAL		THICKNESS	WEIGHT
			4,150#
ORDER NO.	CUSTOMER		DESCRIPTION
	BELLSOUTH PERSONAL COMMUNICATIONS		SECTION ASSEMBLY
			DWG NO. DC3708C

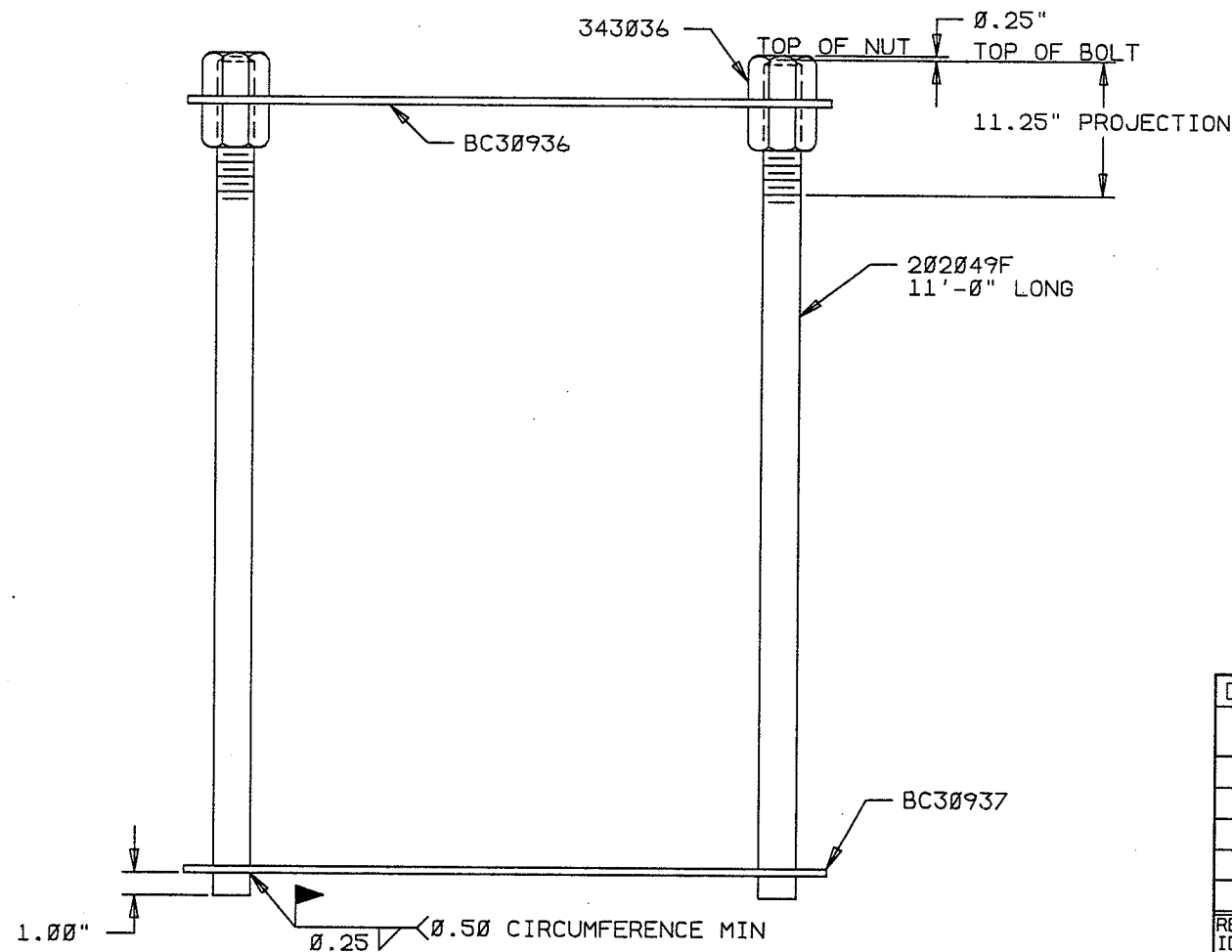


FIELD ASSEMBLY/ERECTION DRAWING



NOTES

1. BOLT CIRCLE DIAMETER = 59.30".
2. MARK LAST FOUR DIGITS OF ASSEMBLY 2351 ON TOP CAGE PLATE AFTER ASSEMBLY.
3. V-NOTCH INDICATES CENTERLINE FLAT #10.



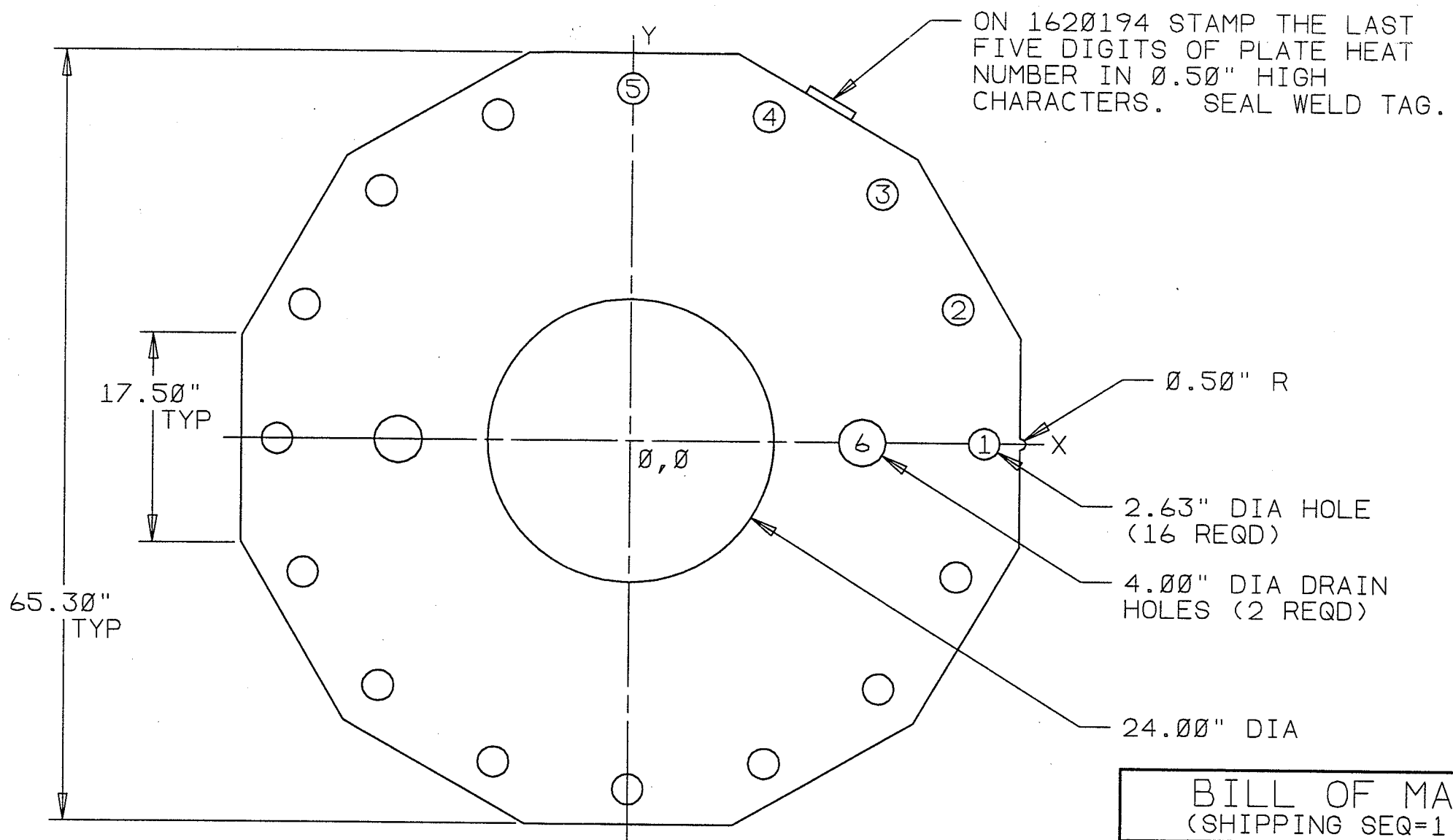
BILL OF MATERIAL (SHIPPING SEQ=1 FOR ALL)		
VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
BC30936	TOP CAGE PLATE	1
BC30937	BOTTOM CAGE PLATE	1
202049F	2.25" BOLT	16
343036	2.25" NUT A563	32

DUPLICATE DRAWING DISTRIBUTION		ICACAWONONBC30936202049FF	
BRENHAM TULSA		DWG SIZE C	CLASS CODE (1) 0 CLASS NO. (3) 444
		DRAWN BWB	ENGR GRT
		DATE 11/18/96	SCALE NONE
		P.A. CHK	SHOP CHK TDJ 11/19/96
OTHER SPECIFICATIONS M-1			
		MATERIAL	THICKNESS
			WEIGHT 2.896#
REV ID	DATE	REV BY	CHK BY
REVISION DESCRIPTION			
ORDER NO.	CUSTOMER		DESCRIPTION
	BELLSOUTH PERSONAL COMMUNICATIONS		ANCHOR BOLT CAGE ASSEMBLY
			DWG NO. CC02351



HOLE COORDINATES (INCHES)		
HOLE NO.	X-COORD	Y-COORD
1	29.65	0.00
2	27.39	11.35
3	20.97	20.97
4	11.35	27.39
5	0.00	29.65
*6	19.44	0.00

*DRAIN HOLE



ON 1620194 STAMP THE LAST FIVE DIGITS OF PLATE HEAT NUMBER IN 0.50" HIGH CHARACTERS. SEAL WELD TAG.

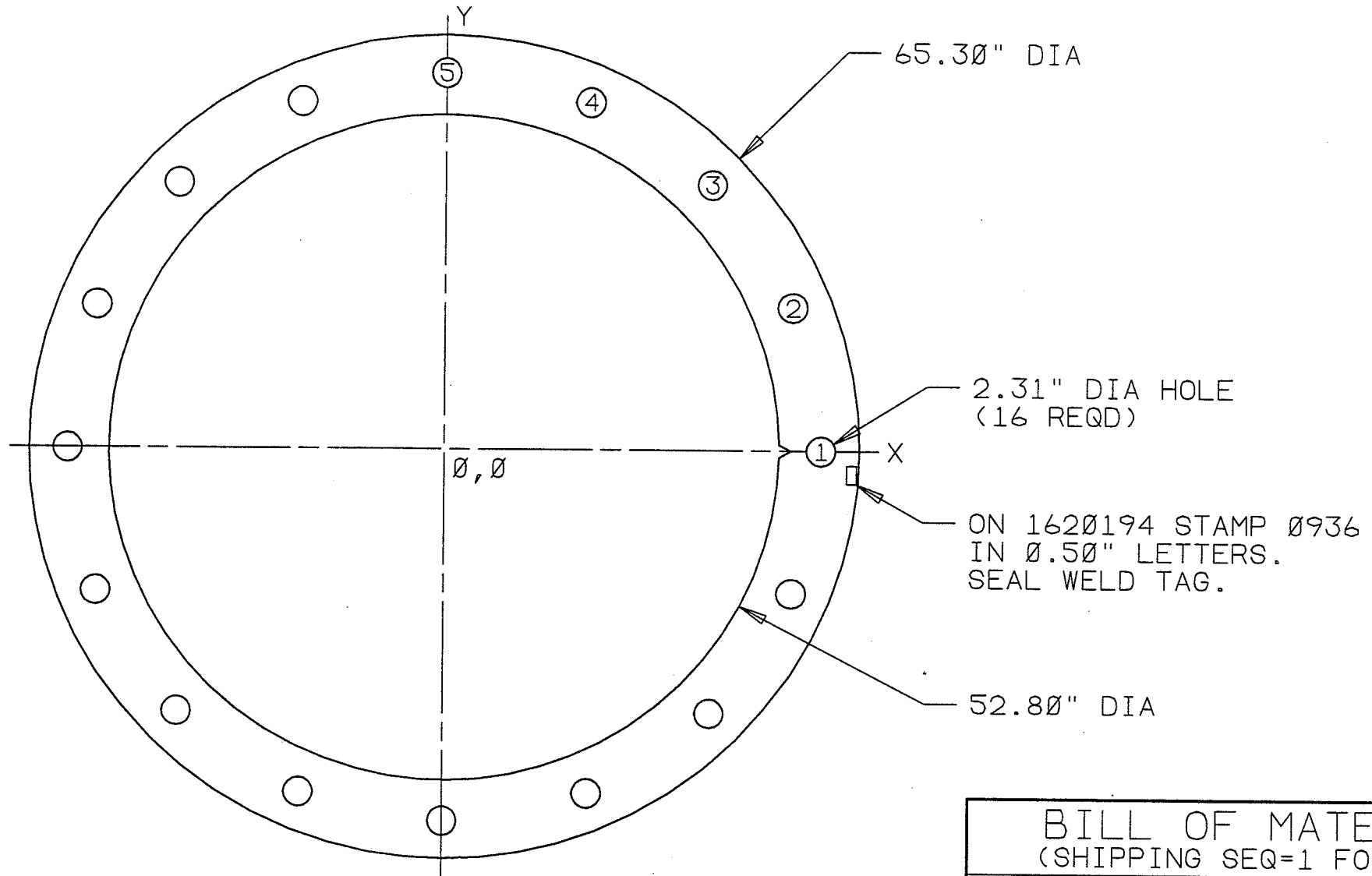
BILL OF MATERIAL (SHIPPING SEQ=1 FOR ALL)		
VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
	BASE PLATE	1
1620194	TAG	1

DUPLICATE DRAWING DISTRIBUTION				LBIC99450029652500128NYN000					
BRENHAM TULSA				DWG SIZE B		CLASS CODE (1) 4		CLASS NO. (3) 200	
REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION	DRAWN BWB	ENGR GRT	DATE 11/18/96	SCALE NONE	
					P.A. CHK		SHOP CHK TDJ 11/19/96		
					OTHER SPECIFICATIONS M-1				
					MATERIAL S-128	THICKNESS 2.500"	WEIGHT 2,061#		
ORDER NO.				CUSTOMER BELLSOUTH PERSONAL COMMUNICATIONS			DESCRIPTION BASE PLATE		DWG NO. BC30935

NOTES:
1. BOLT CIRCLE DIAMETER = 59.30".

HOLE COORDINATES (INCHES)

HOLE NO.	X-COORD	Y-COORD
1	29.65	0.00
2	27.39	11.35
3	20.97	20.97
4	11.35	27.39
5	0.00	29.65



BILL OF MATERIAL (SHIPPING SEQ=1 FOR ALL)		
VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
	TOP CAGE PLATE	1
1620194	TAG	1

DUPLICATE DRAWING DISTRIBUTION		ICP9945002965000	
BRENHAM TULSA		DWG SIZE <u>B</u>	CLASS CODE (1) <u>4</u> CLASS NO. (3) <u>900</u>

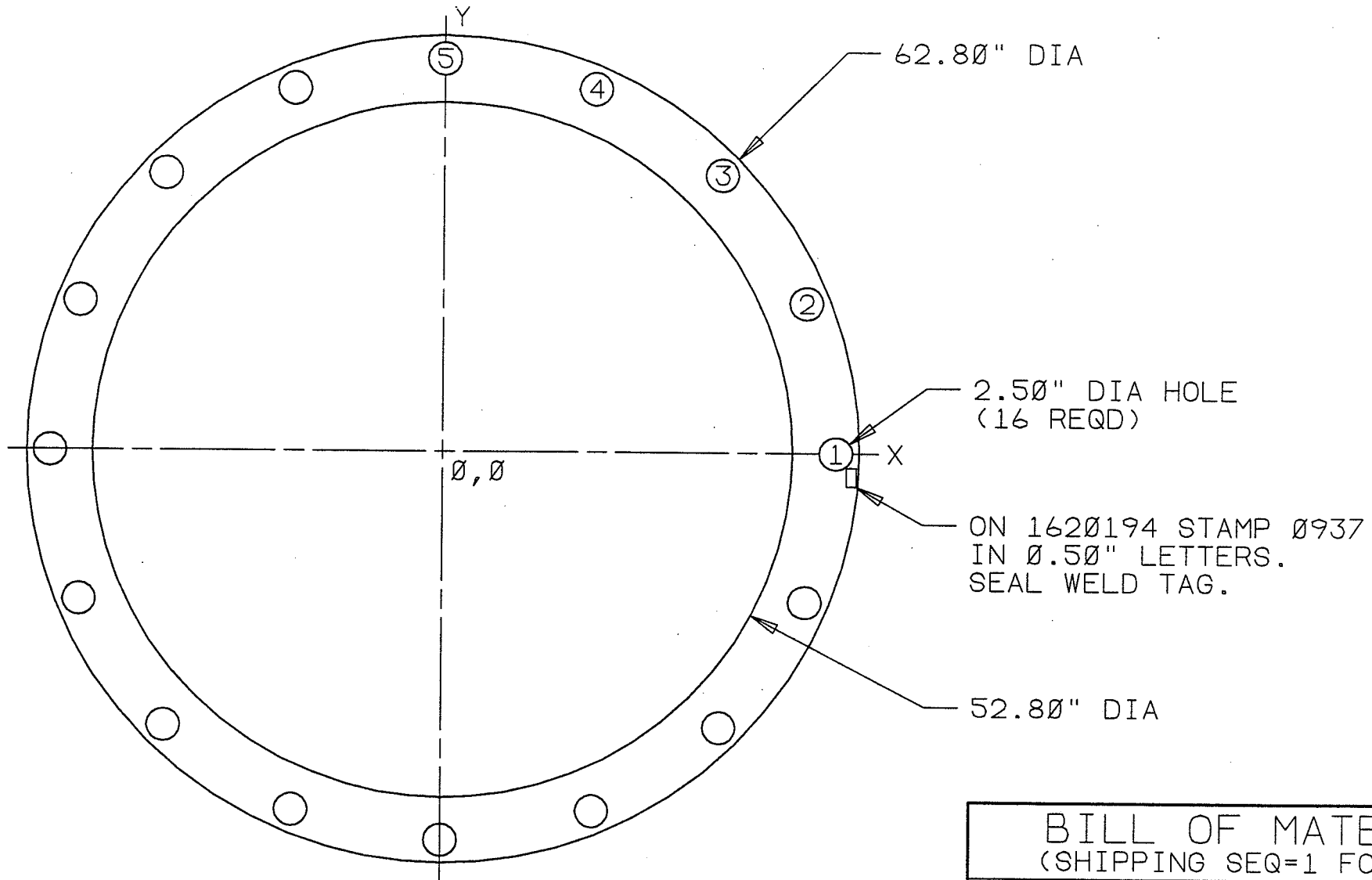
					DRAWN BWB ENGR GRT DATE 11/18/96 SCALE NONE P.A. CHK SHOP CHK TDJ 11/19/96
					OTHER SPECIFICATIONS M-1
REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION	MATERIAL S-115 THICKNESS 0.500" WEIGHT 155#



- NOTES:
 1. BOLT CIRCLE DIAMETER = 59.30".
 2. 1.00" V-NOTCH AT POSITION INDICATED.

ORDER NO.	CUSTOMER BELLSOUTH PERSONAL COMMUNICATIONS	DESCRIPTION TOP CAGE PLATE	DWG NO. BC30936
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HOLE COORDINATES (INCHES)		
HOLE NO.	X-COORD	Y-COORD
1	29.65	0.00
2	27.39	11.35
3	20.97	20.97
4	11.35	27.39
5	0.00	29.65

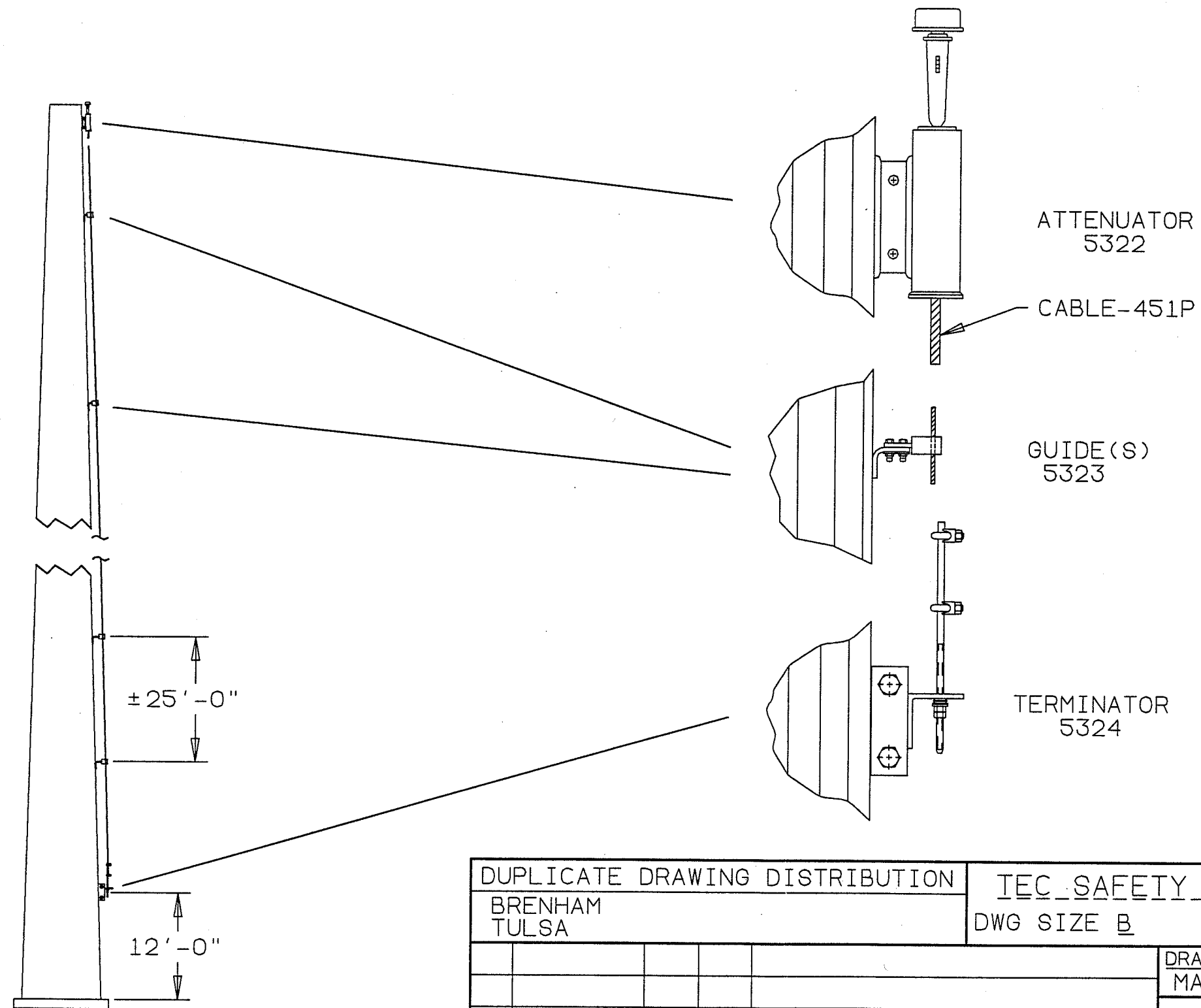


BILL OF MATERIAL (SHIPPING SEQ=1 FOR ALL)		
VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
	BOTTOM CAGE PLATE	1
1620194	TAG	1


DUPLICATE DRAWING DISTRIBUTION				BCP9945002965			
BRENHAM TULSA				DWG SIZE B CLASS CODE (1) 4 CLASS NO. (3) 900			
				DRAWN BWB	ENGR GRT	DATE 11/18/96	SCALE NONE
				P.A. CHK		SHOP CHK TDJ 11/19/96	
				OTHER SPECIFICATIONS M-1			
REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION	MATERIAL S-115	THICKNESS 0.500"	WEIGHT 117#
ORDER NO.				CUSTOMER BELLSOUTH PERSONAL COMMUNICATIONS		DESCRIPTION BOTTOM CAGE PLATE	
						DWG NO. BC30937	

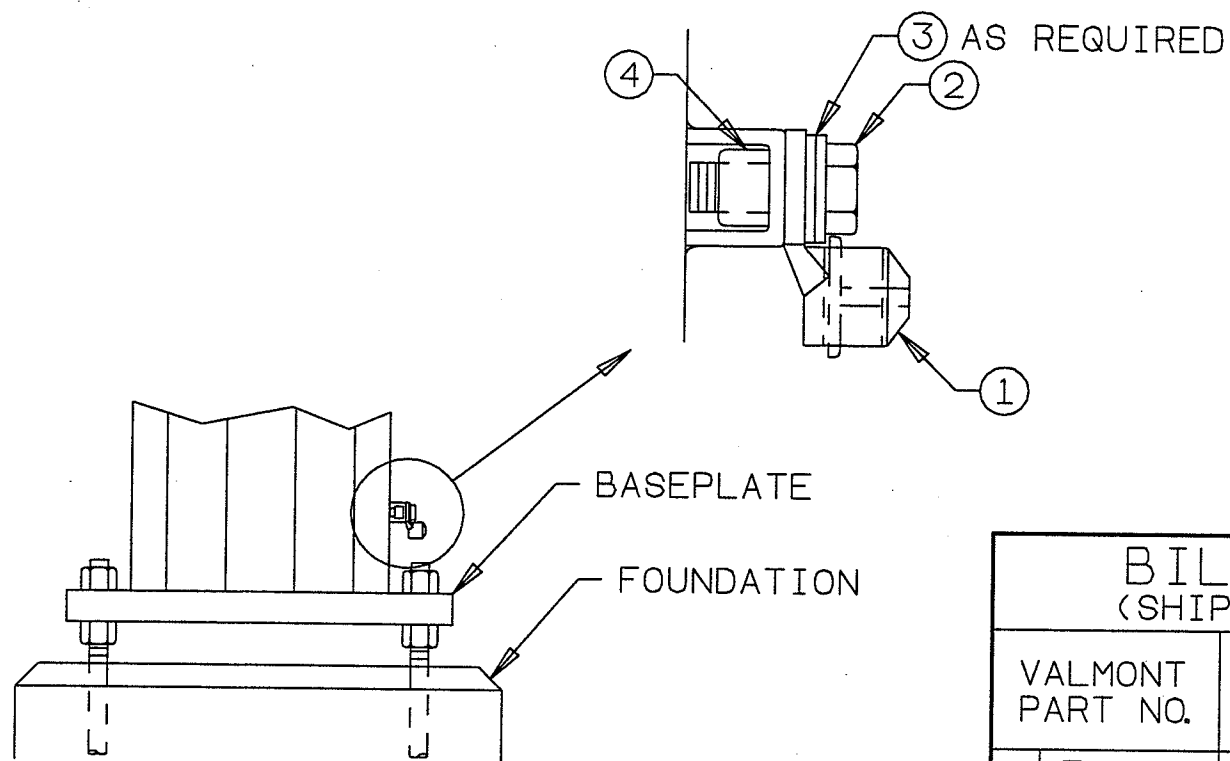


NOTES:
1. BOLT CIRCLE DIAMETER = 59.30".



BILL OF MATERIAL (SHIPPING SEQ=1 FOR ALL)			
VALMONT PART NO.	DESCRIPTION		QTY PER ASSY
BCO 5322	ATTENUATOR		1
BCO 5323	CABLE GUIDE		5
BCO 5324	TERMINATOR		1
ACO 451P	CABLE		1

DUPLICATE DRAWING DISTRIBUTION				TEC SAFETY CABLE ASSEMBLY - 160 FT.							
BRENHAM TULSA				DWG SIZE B		CLASS CODE (1) 1		CLASS NO. (3) 450			
				DRAWN MAL	ENGR	DATE 04/06/89	SCALE NONE				
				P.A. CHK		SHOP CHK MAL					
				OTHER SPECIFICATIONS							
				MATERIAL	THICKNESS	WEIGHT 57 #					
REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION							
				ORDER NO. STANDARD	CUSTOMER STANDARD			DESCRIPTION 160' SAFETY CABLE ASSEMBLY	DWG NO. BCA160Z		



BILL OF MATERIAL
(SHIPPING SEQ=1 FOR ALL)

VALMONT PART NO.	DESCRIPTION	QTY PER ASSY
1 345616	GROUND LUG	1
2 161147	0.63" X 1.50" BOLT	1
3 142070	0.63" FLAT WASHER	2
4 131202	0.63" SQUARE NUT	1

DUPLICATE DRAWING DISTRIBUTION
BRENHAM, TX
TULSA, OK

TEC_GROUND_LUG_KIT
DWG SIZE A CLASS CODE (1) 1 CLASS NO. (3) 450

REV ID	DATE	REV BY	CHK BY	REVISION DESCRIPTION
△	07/12/90	MAL		REDRAWN ON CAD

DRAWN LPW	ENGR	DATE 11/01/88	SCALE NONE
P.A. CHK		SHOP CHK	
OTHER SPECIFICATIONS M-1			
MATERIAL	THICKNESS	WEIGHT 1 #	



ORDER NO.
STANDARD

CUSTOMER
STANDARD

DESCRIPTION
GROUND LUG KIT

DWG NO.
AC0531Z