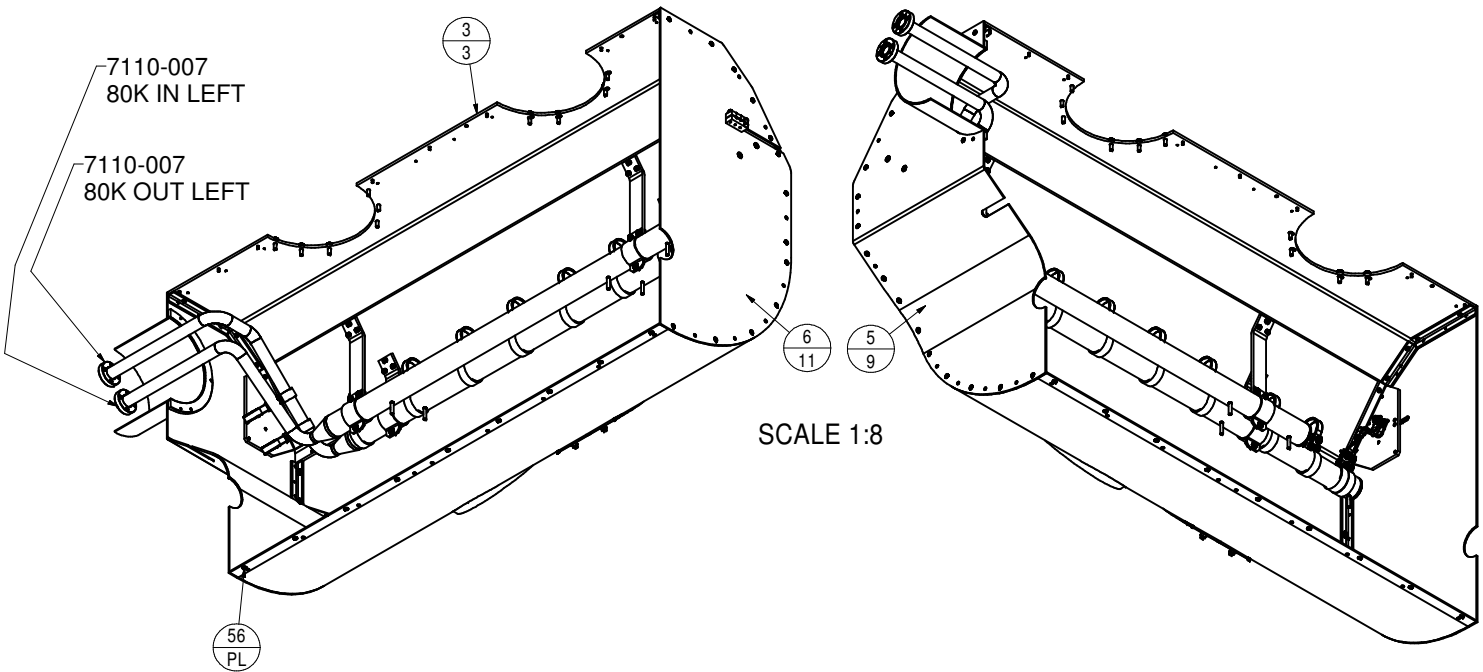
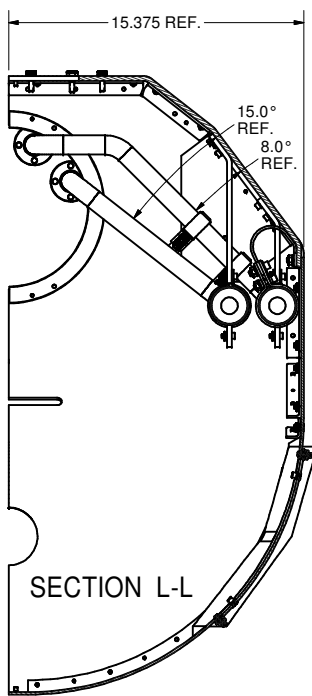
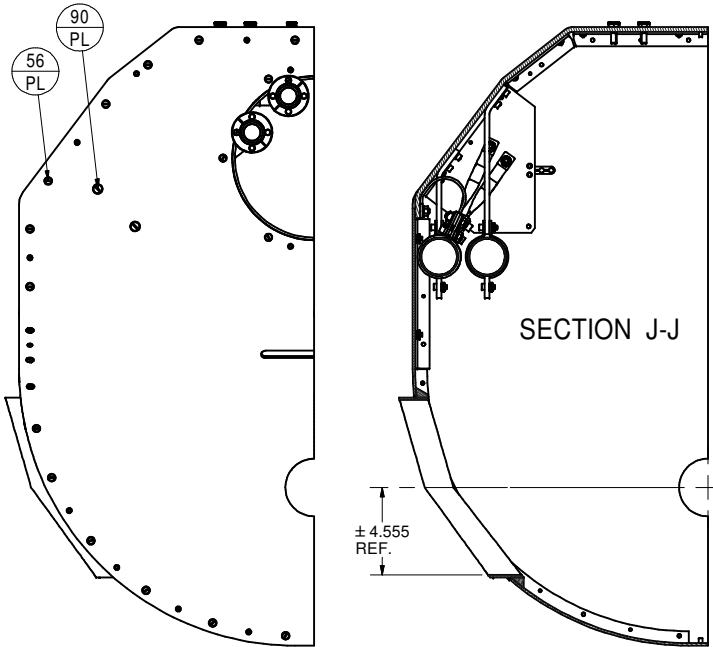
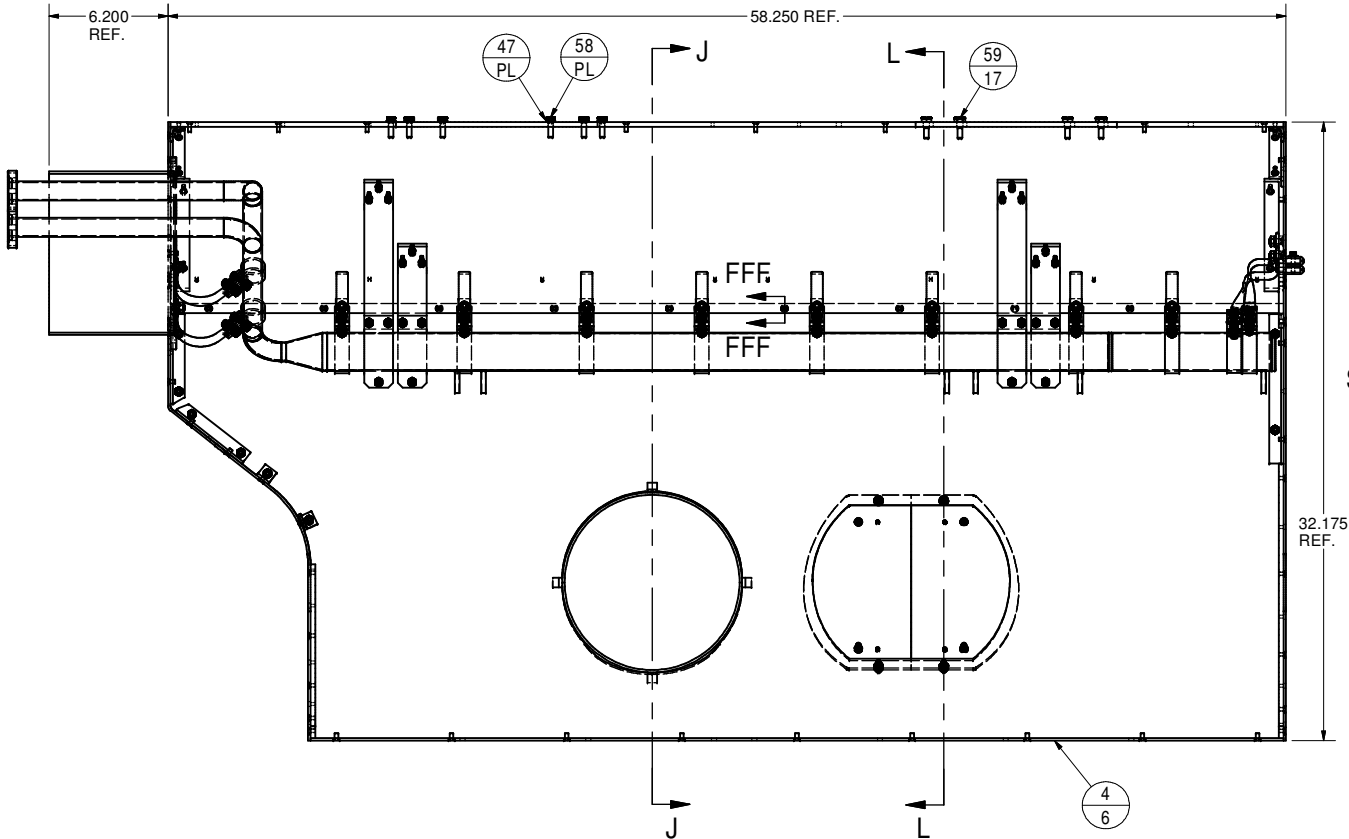
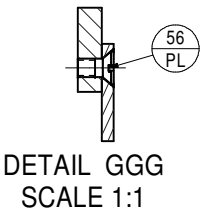
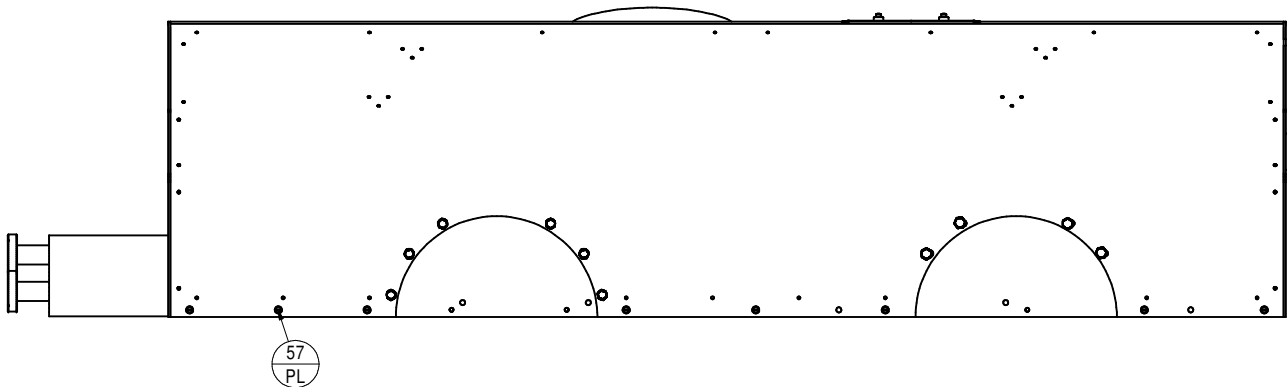





REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

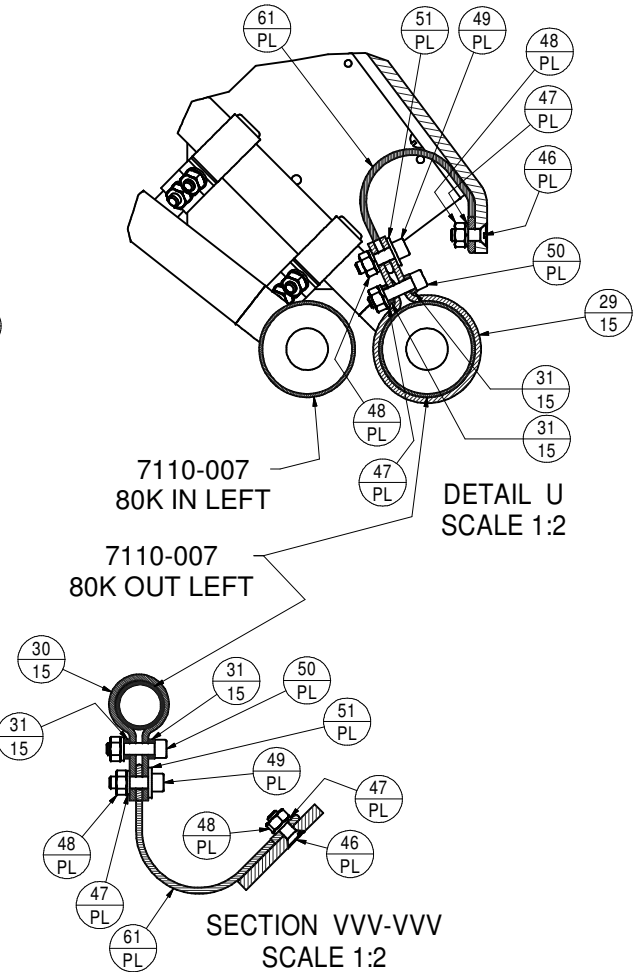
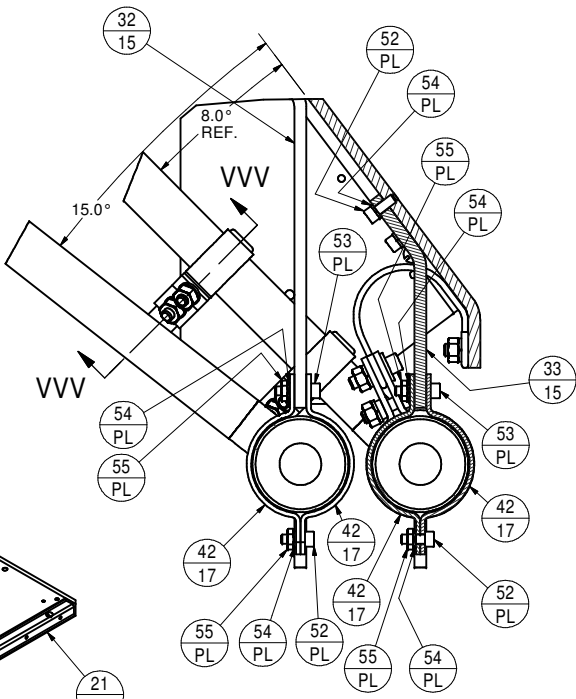
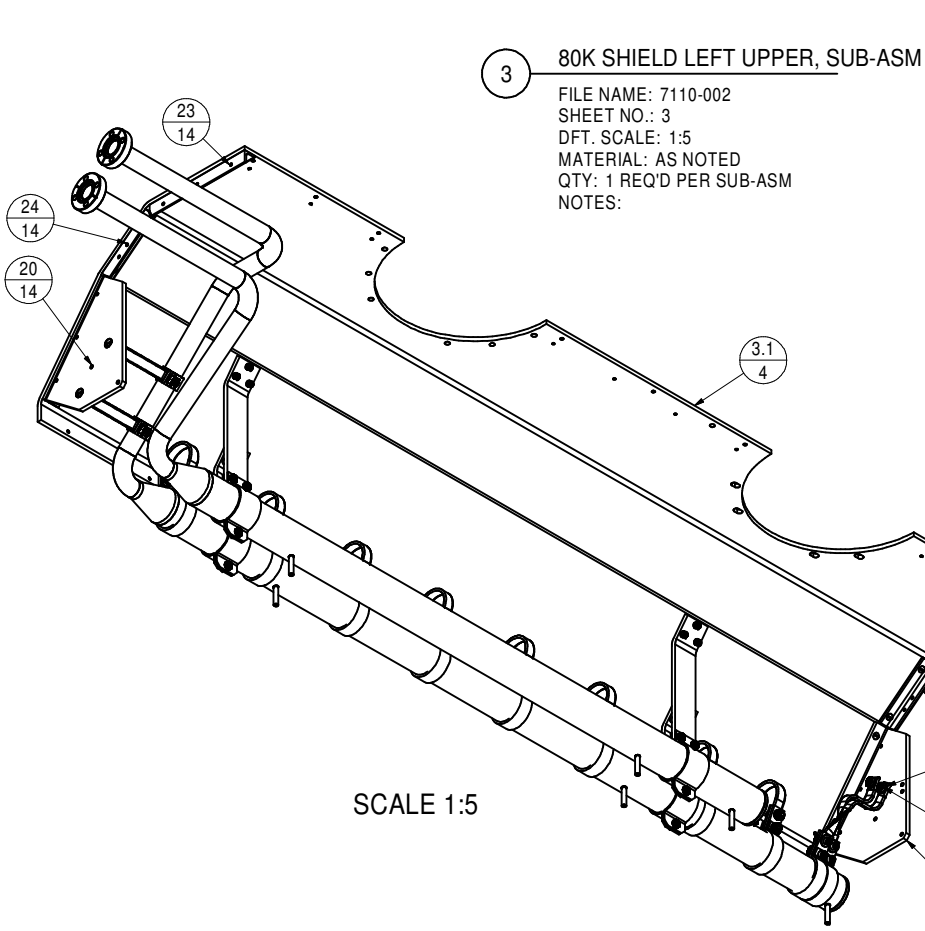
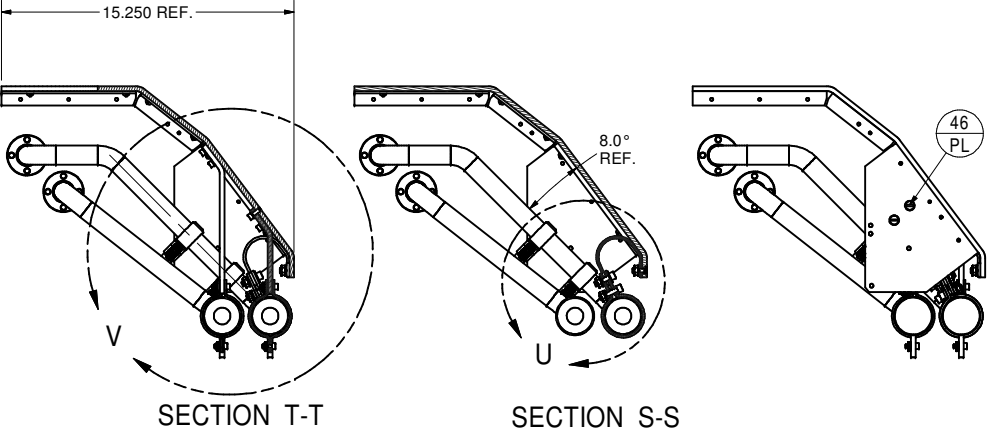
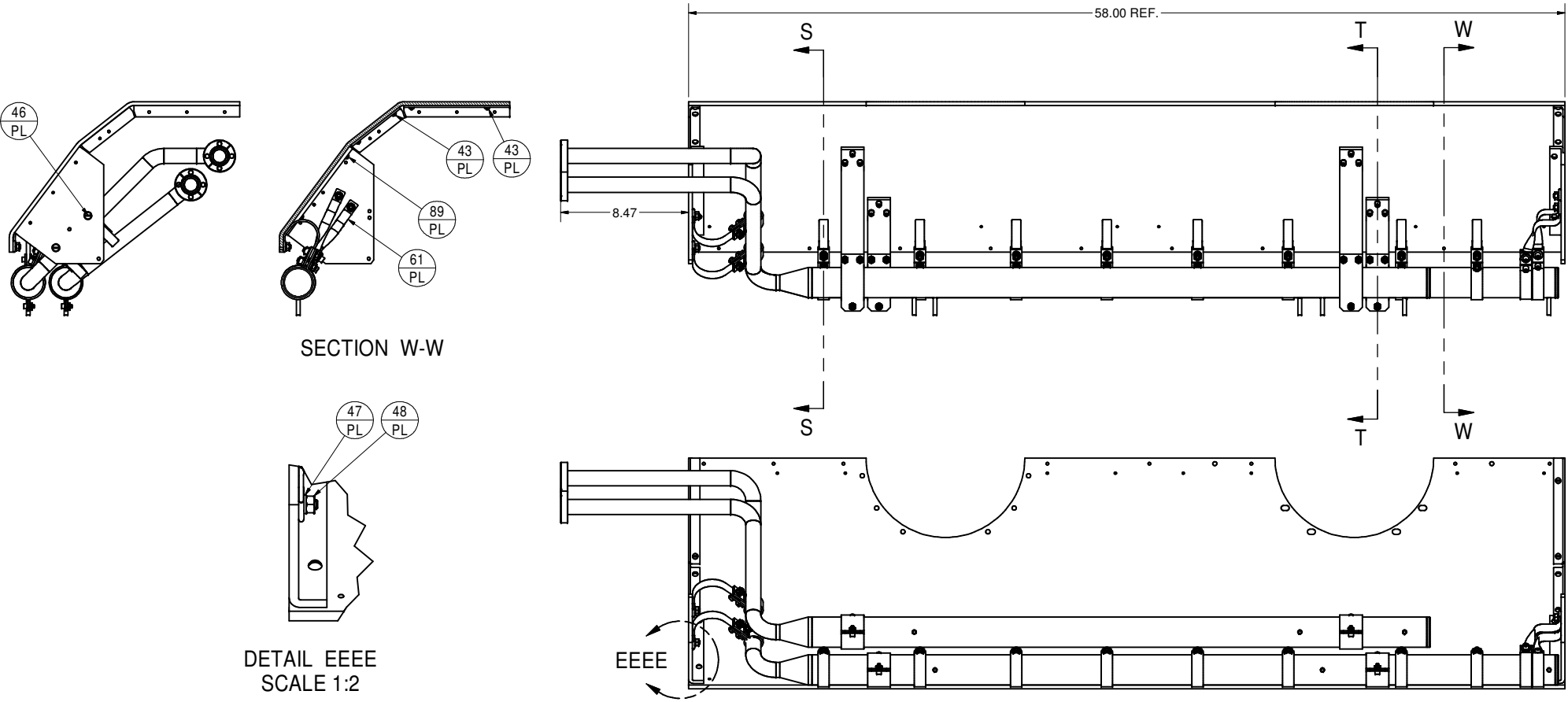


2 80K SHIELD LEFT, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 2
DFT. SCALE: 1:5
MATERIAL: AS NOTED
QTY: 1 PER ASM
NOTES: QUANTITIES OF FASTENERS IN PARTS LIST
REFLECTS BOTH MAJOR SUB-ASMS.
(LEFT AND RIGHT)

90		Slotted Fl Csk Hd Cap Scr 1/4-20UNCx3/8 Lg.	4		Alum
59	Sh.17	80K Shield Screw	4		
58		Hex Bolt 1/4-20UNC x 7/8 Lg.	6		316 Stn Stl
57		Slotted Fl Csk Hd Cap Scr 8-32UNC x 1/2 Lg.	8		Alum
56		Slotted Fl Csk Hd Cap Scr 10-32UNF x 3/8 Lg.	48		Alum
47		Regular Helical Spring Lock Washer	6		316 Stn Stl
36	Sh.12	Control Tubing Clamp, Sub-Asm	1		
6	Sh.11	80K Shield Back Left Half	1		
5	Sh.9	80KShield Front Left Half, Sub-Asm	1		
4	Sh.6	80K Shield Left Lower, Sub-Asm	1		
3	Sh.3	80K Shield Left Upper, Sub-Asm	1		
2	7110-002, Sh.2	80K Shield Left, Sub-Asm	1	X	

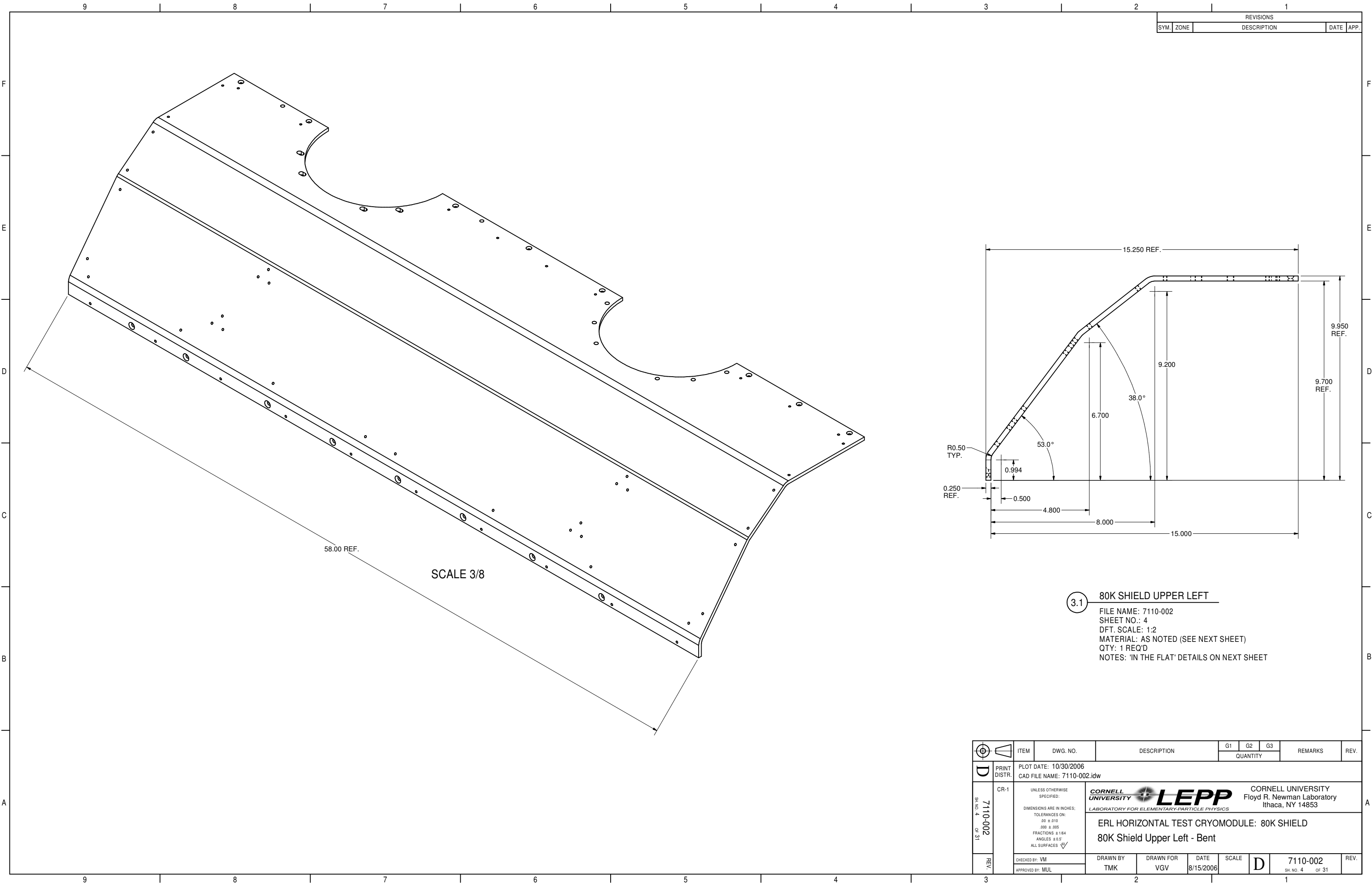
	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
SH. NO. 2 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 			<div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Left, Sub-Asm</div>					
		CHECKED BY: VM			DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 2 OF 31	REV.
		APPROVED BY: MUL								

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



89		Slotted Rd Hd Cap Scr 10-24UNCx1/2 Lg.	4	316 Stn Stl
61		Flexible Copper Braid (Total Qty = 28)	12	Blackburn FBB12-1" 6" or Equiv
55		Hex Nut 10-24UNC	12	316 Stn Stl
54		Regular Helical Spring Lock Washer #10	24	316 Stn Stl
53		Hex Soc Hd Cap Scr 10-24UNCx3/4Lg.	8	316 Stn Stl Diconited
52		Hex Soc Hd Cap Scr 10-24UNCx1/2Lg.	16	316 Stn Stl Diconited
51		Washer Plain Type A 1/4	12	316 Stn Stl
50		Hex Soc Hd Cap Scr 1/4-20UNCx1.00Lg.	12	316 Stn Stl Diconited
49		Hex Soc Hd Cap Scr 1/4-20UNCx7/8Lg.	12	316 Stn Stl Diconited
48		Hex Nut 1/4-20UNC	36	316 Stn Stl
47		Regular Helical Spring Lock Washer 1/4	36	316 Stn Stl
46		Slotted Flat Csk Hd Cap Scr 1/4-20UNCx3/4Lg.	12	316 Stn Stl Diconited
45		Hex Nut 10-32UNF	8	316 Stn Stl
43		Slotted Rd Hd Cap Scr 10-24UNCx3/8 Lg.	8	Alum
42	Sh.17	Half Clamp Ring	8	
33	Sh.15	Short Bracket	2	
32	Sh.15	Long Bracket	2	
31	Sh.15	Clamp Spacer	24	
30	Sh.15	1" Copper Clamp	2	
29	Sh.15	2" Copper Clamp	2	
24	Sh.14	Angle 2-2	1	
23	Sh.14	Angle 1-2	1	
22	Sh.13	Angle 2	1	
21	Sh.13	Angle 1	1	
20	Sh.14	Angle 3-6	1	
19	Sh.13	Angle 3-4	1	
3.1	Sh.4	80K Shield Upper Left	1	
3	Sh.3	80K Shield Left Upper, Sub-Asm	1	X






ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw			QUANTITY				
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± 0.10 .000 ± 0.005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES			CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY ITHACA, NY 14853			CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY ITHACA, NY 14853	
ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Left Upper, Sub-Asm			DRAWN BY TMK			DRAWN FOR VGV	
CHECKED BY: VM APPROVED BY: MUL			DATE 8/15/2006			SCALE D	
7110-002 SH. NO. 3 OF 31			7110-002 SH. NO. 3 OF 31			REV.	



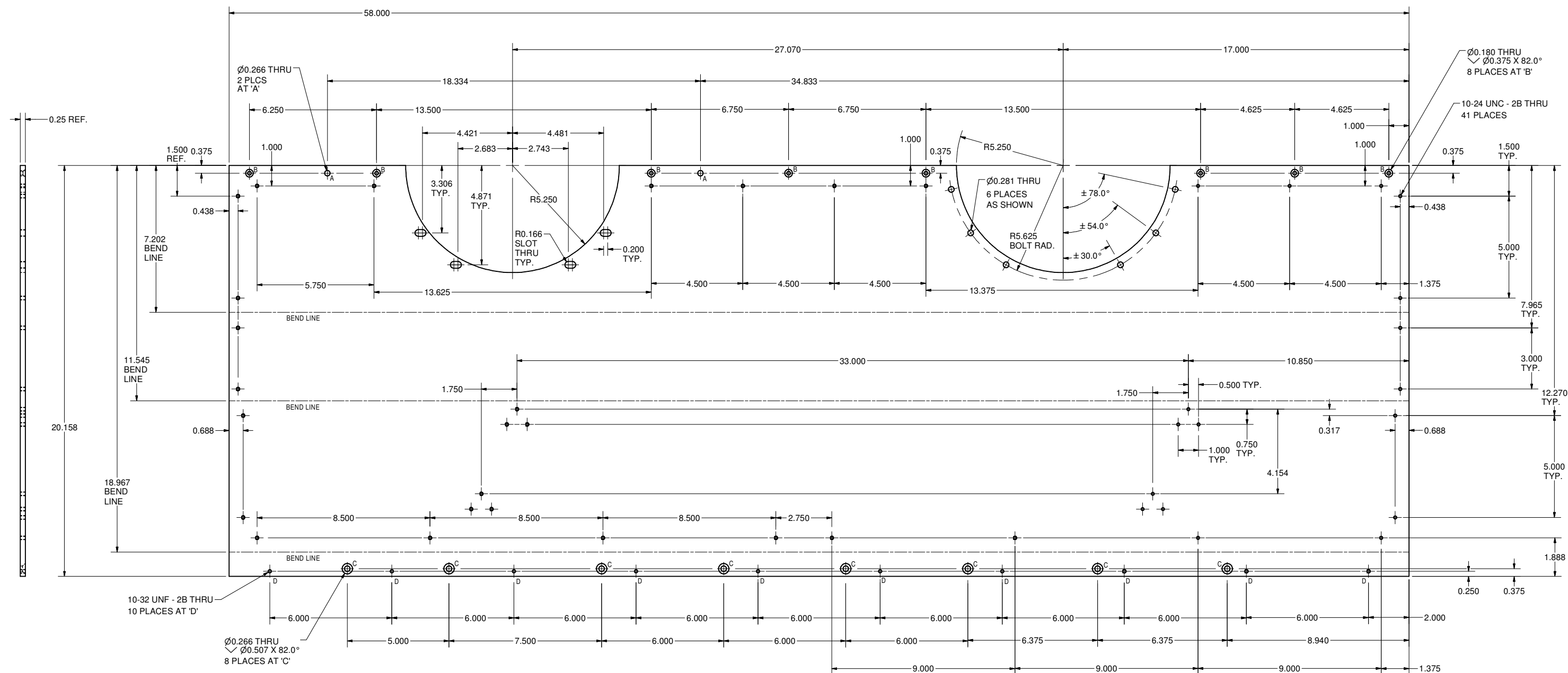
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

3.1 80K SHIELD UPPER LEFT

FILE NAME: 7110-002
SHEET NO.: 4
DFT. SCALE: 1:2
MATERIAL: AS NOTED (SEE NEXT SHEET)
QTY: 1 REQ'D
NOTES: 'IN THE FLAT' DETAILS ON NEXT SHEET

		ITEM		DWG. NO.		DESCRIPTION			G1		G2		G3		REMARKS		REV.	
								QUANTITY										
		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw														
7110-002 SH. NO. 4 OF 31		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		CORNELL UNIVERSITY  CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS												
						ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Upper Left - Bent												
REV.		CHECKED BY: VM		DRAWN BY		DRAWN FOR		DATE		SCALE				7110-002		REV.		
		APPROVED BY: MUL		TMK		VGV		8/15/2006										
														SH. NO. 4 OF 31				




REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



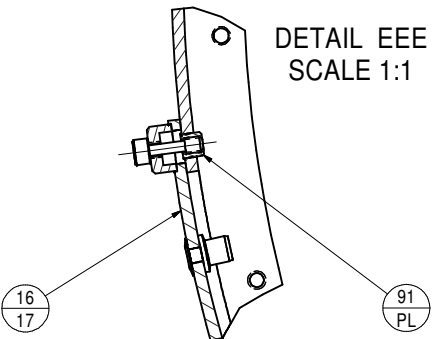
80K SHIELD UPPER LEFT - FLAT PATTERN

3.2

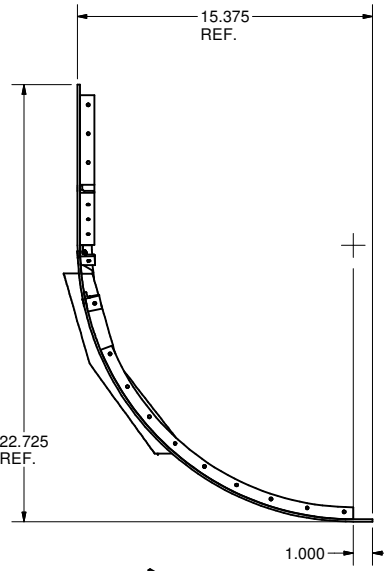
FILE NAME: 7110-002
SHEET NO.: 5
DFT. SCALE: 3:8
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER ASM
NOTES: ALL BENDS ARE DOWN.
SEE PREVIOUS SHEET FOR BEND PROFILE

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
D PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw									
SH. NO. 5 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES; TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> CORNELL UNIVERSITY </div> <div style="flex: 2; text-align: center;">  LEPP LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS </div> <div style="flex: 2; text-align: right;"> CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 </div> </div>							
		ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Upper Left - Flat Pattern								
REV.	CHECKED BY: VM	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE	D	7110-002 SH. NO. 5 OF 31		REV.	
	APPROVED BY: MUL									

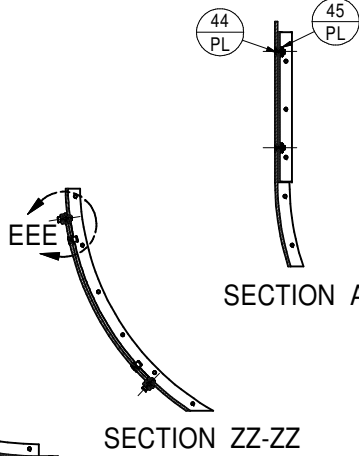
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



INSTALL ITEMS 91 (NUT INSERTS X 4) TO ITEM 4.1
TO ALLOW ASSEMBLY OF ITEM 16

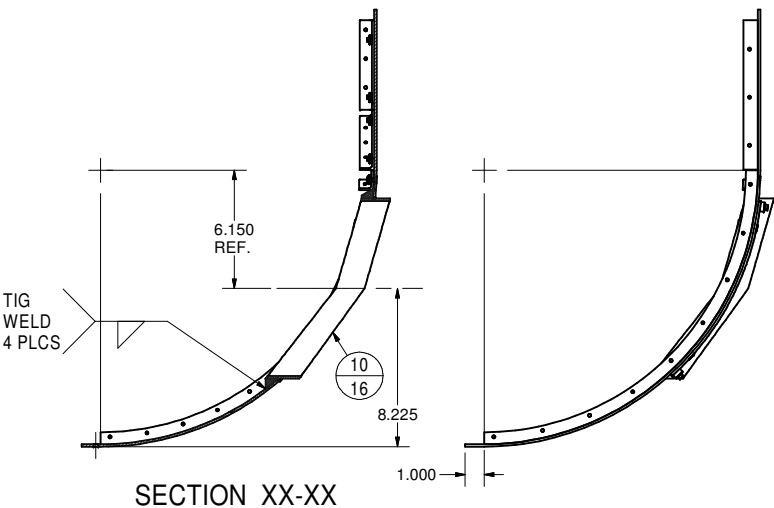
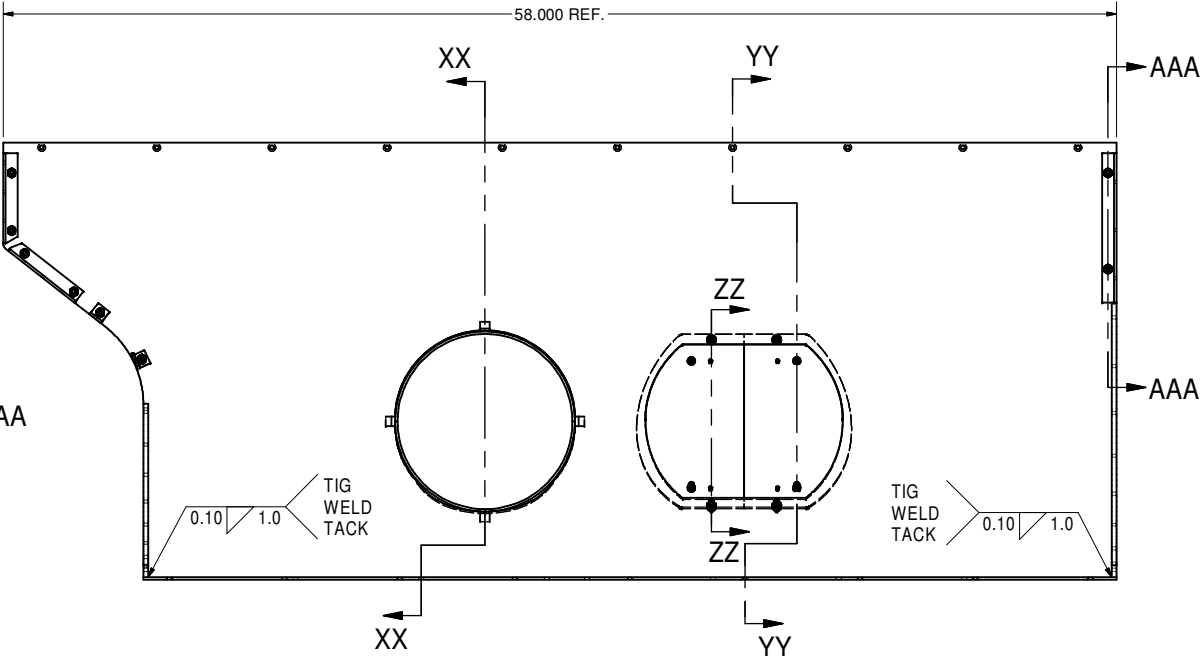
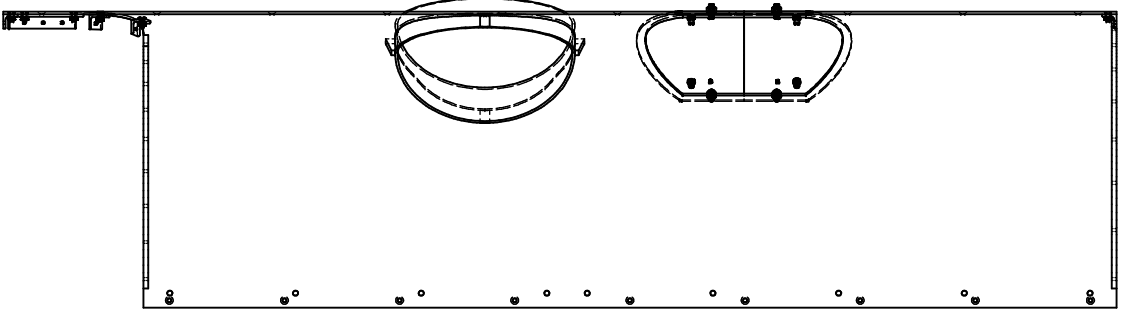


SECTION YY-YY

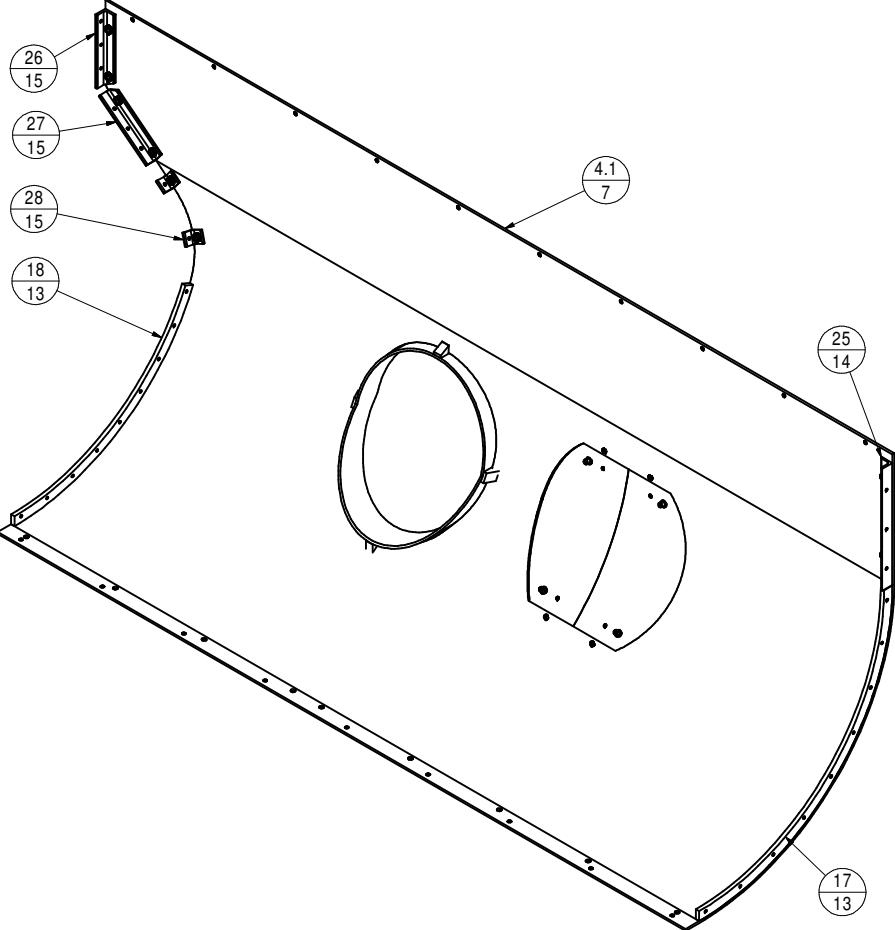


SECTION ZZ-ZZ

SECTION AAA-AAA






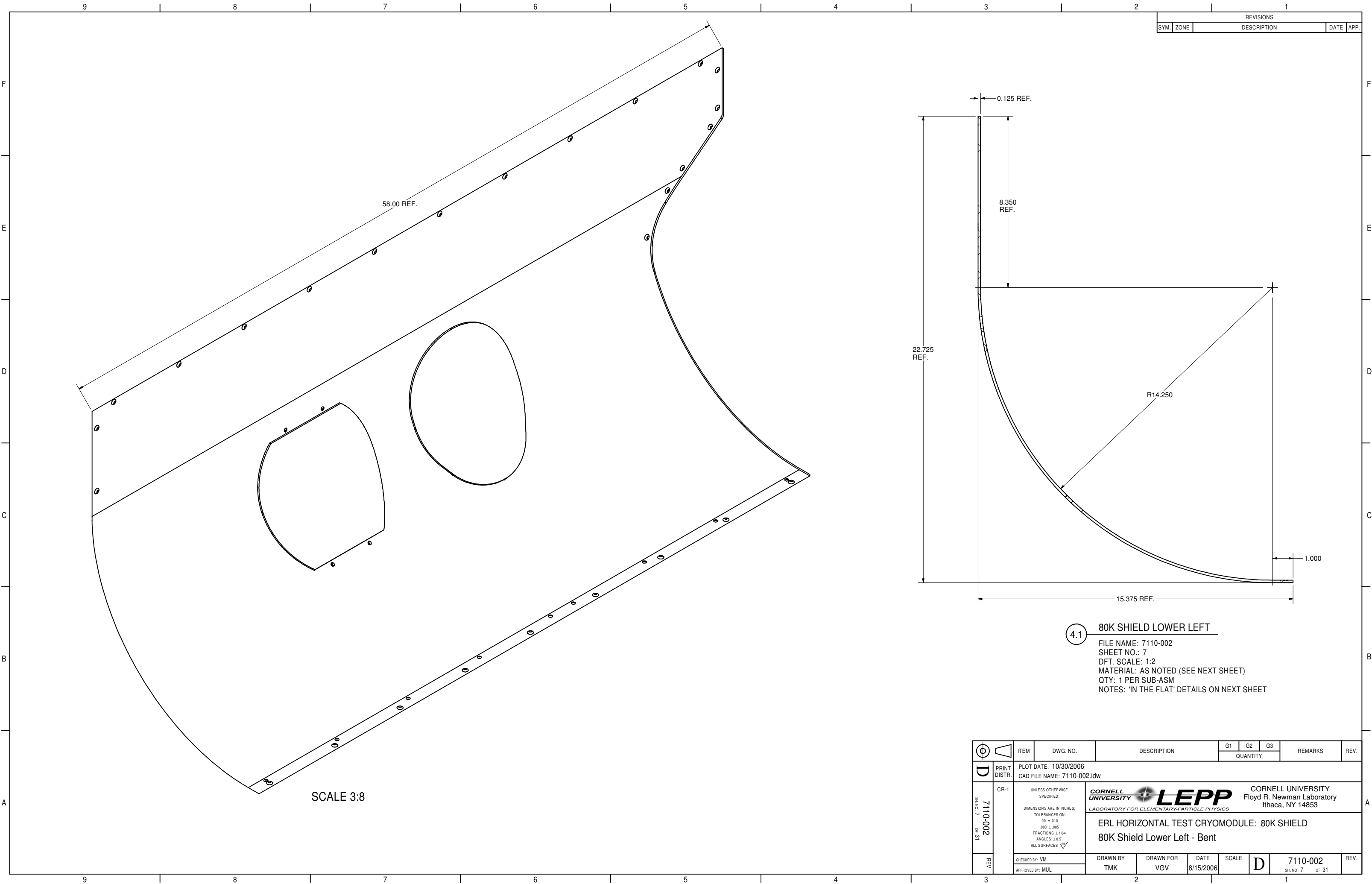
SECTION XX-XX



4 80K SHIELD LEFT LOWER, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 6
DFT. SCALE: 1:5
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM
NOTES:

91		Nut Insert 8-32UNC Stn Stl	4	McMC #98005A130 or Equiv.
45		Hex Nut 10-32UNF	8	316 Stn Stl
44		Slotted Flat Csk Hd Cap Scr 10-32UNFx1/2Lg.	8	Alum
28	Sh.15	Angle 7-1	2	
27	Sh.15	Angle 6-2	1	
26	Sh.15	Angle 4-2	1	
25	Sh.14	Angle 11-2	1	
18	Sh.13	Shield Quarter Ring	1	
17	Sh.13	Shield Quarter Ring 2	1	
16	Sh.17	Tuner Port Cover, Sub-Asm	2	
10	Sh.16	80K Shield Coupler Port Tube, Sub-Asm	1	
4.1	Sh.7	80K Shield Lower Left	1	
4	Sh.6	80K Shield Lower Left, Sub-Asm	1	X




	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
				QUANTITY					
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw							
		CR-1	<div>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES </div>		<div> CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY LABORATORY FOR ELEMENTARY PARTICLE PHYSICS ITHACA, NY 14853</div>			ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Left Lower, Sub-Asm	
SH. NO. 6 OF 31	7110-002	REV.	CHECKED BY: VM	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 6 OF 31	REV.
			APPROVED BY: MUL						



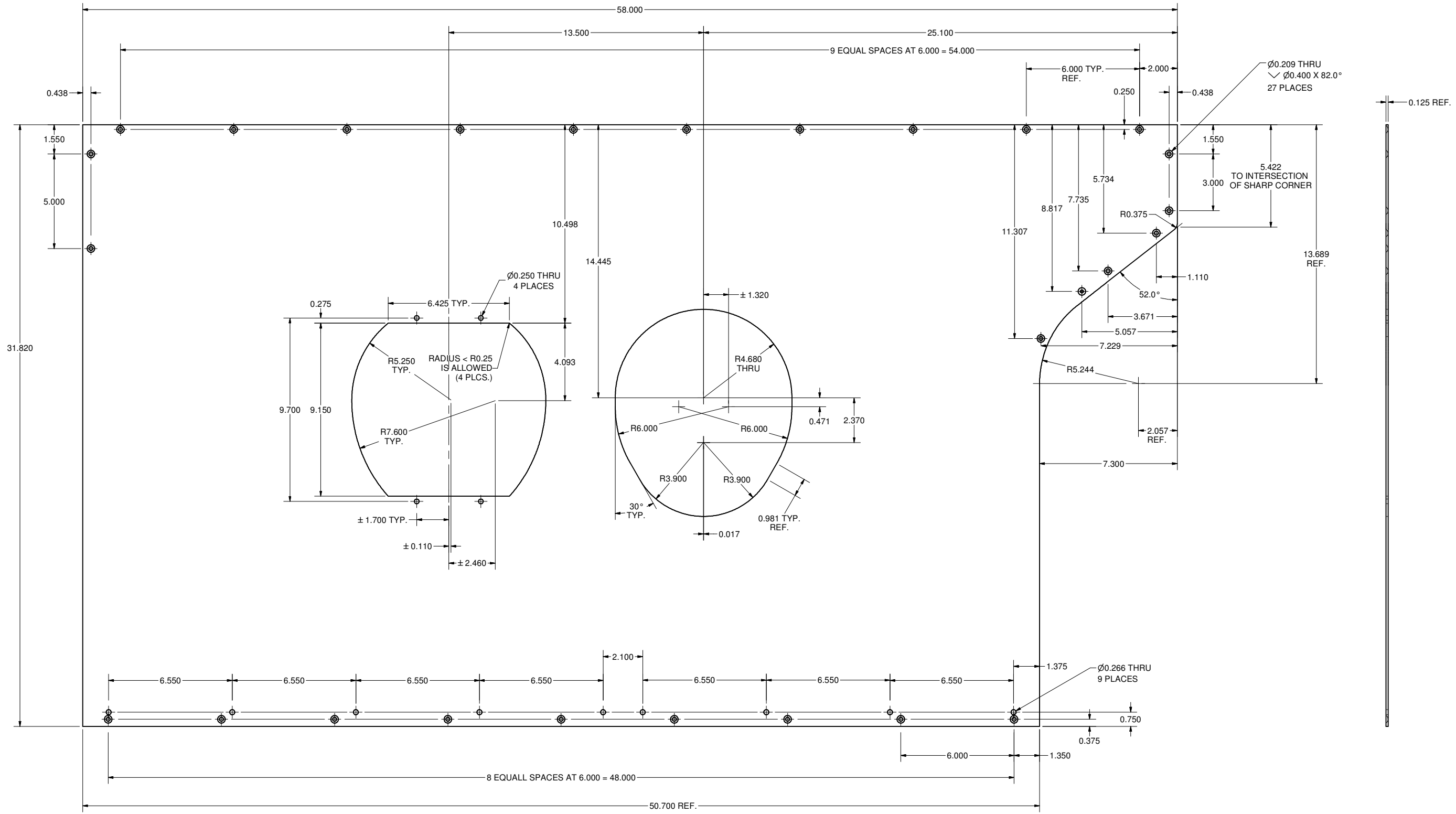
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

4.1 80K SHIELD LOWER LEFT

FILE NAME: 7110-002
SHEET NO.: 7
DFT. SCALE: 1:2
MATERIAL: AS NOTED (SEE NEXT SHEET)
QTY: 1 PER SUB-ASM
NOTES: 'IN THE FLAT' DETAILS ON NEXT SHEET






		ITEM		DWG. NO.		DESCRIPTION			G1	G2	G3	REMARKS		REV.			
									QUANTITY								
D		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw													
7110-002 SH. NO. 7 OF 31		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		CORNELL UNIVERSITY  LEPP LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS			CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853								
						ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Lower Left - Bent											
REV.		CHECKED BY: VM		DRAWN BY		DRAWN FOR		DATE		SCALE		D		7110-002		REV.	
		APPROVED BY: MUL		TMK		VGV		8/15/2006						SH. NO. 7 OF 31			

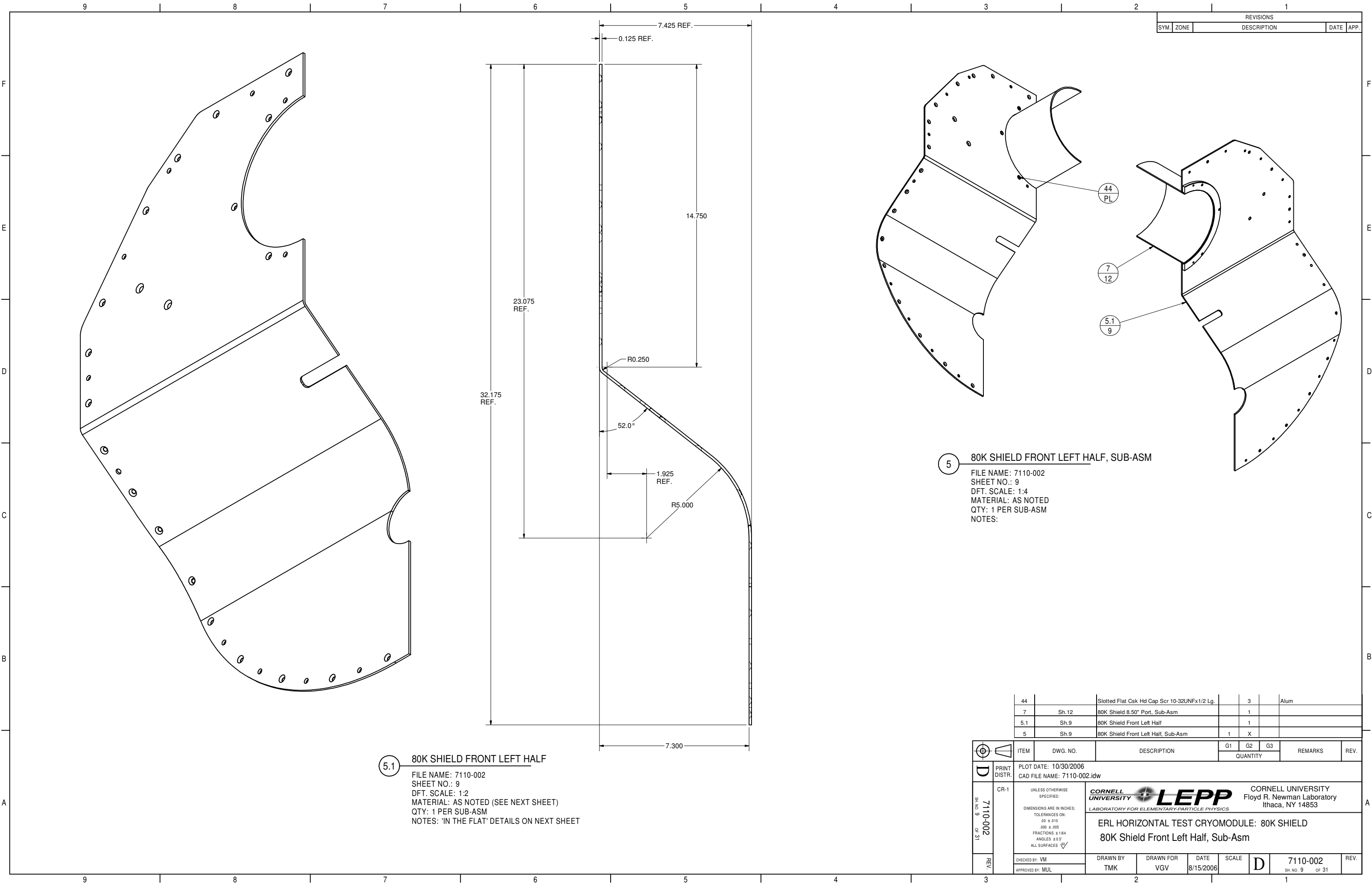
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



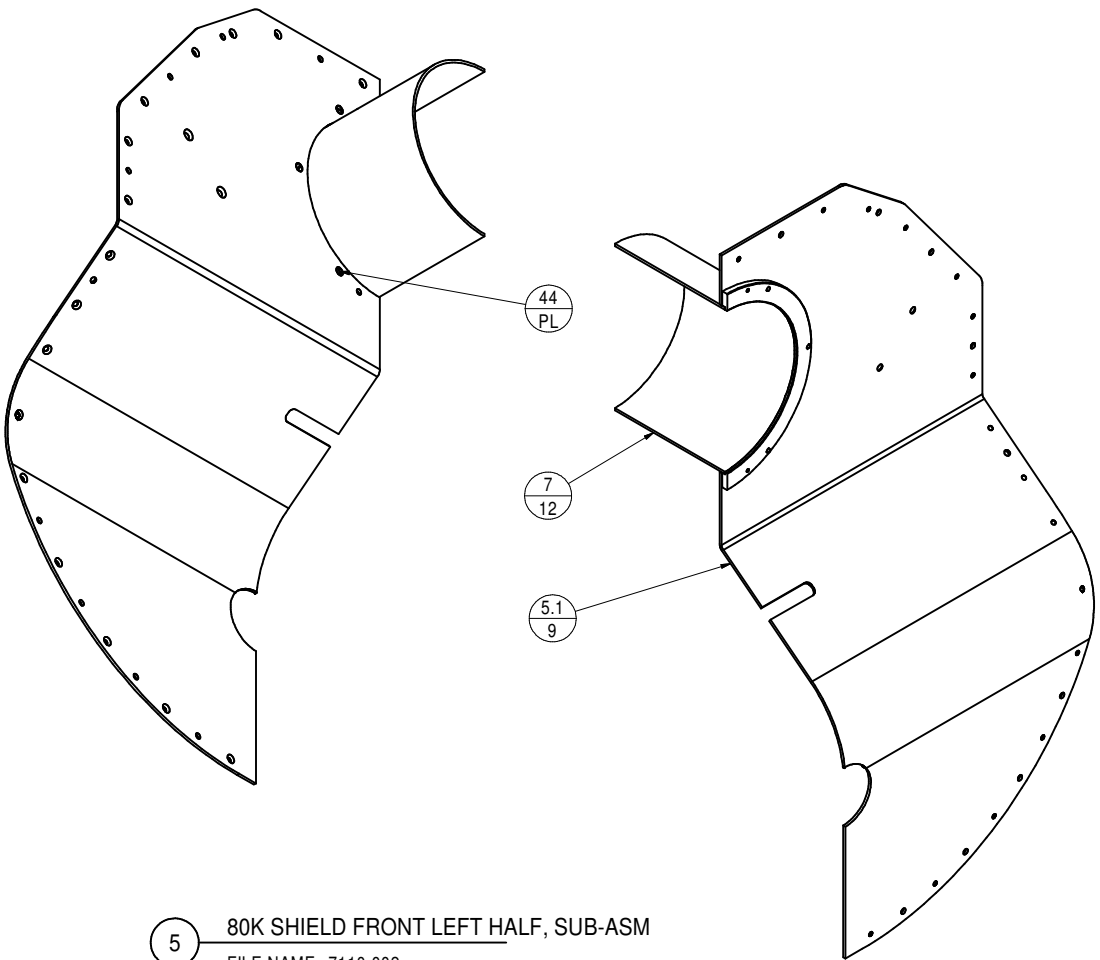
4.2 80K SHIELD LOWER LEFT - FLAT PATTERN

FILE NAME: 7110-002
SHEET NO.: 8
DFT. SCALE: 3:8
MATERIAL: 1/8" 1100-H14 ALUM SHEET
QTY: 1 PER ASM
NOTES: ALL BENDS ARE DOWN.
SEE PREVIOUS SHEET FOR BEND PROFILE

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
				QUANTITY						
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
	 SH. NO. 8 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED:		 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS					
DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 										
REV.			CHECKED BY: VM	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 8 OF 31	REV.	
		APPROVED BY: MUL								





REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



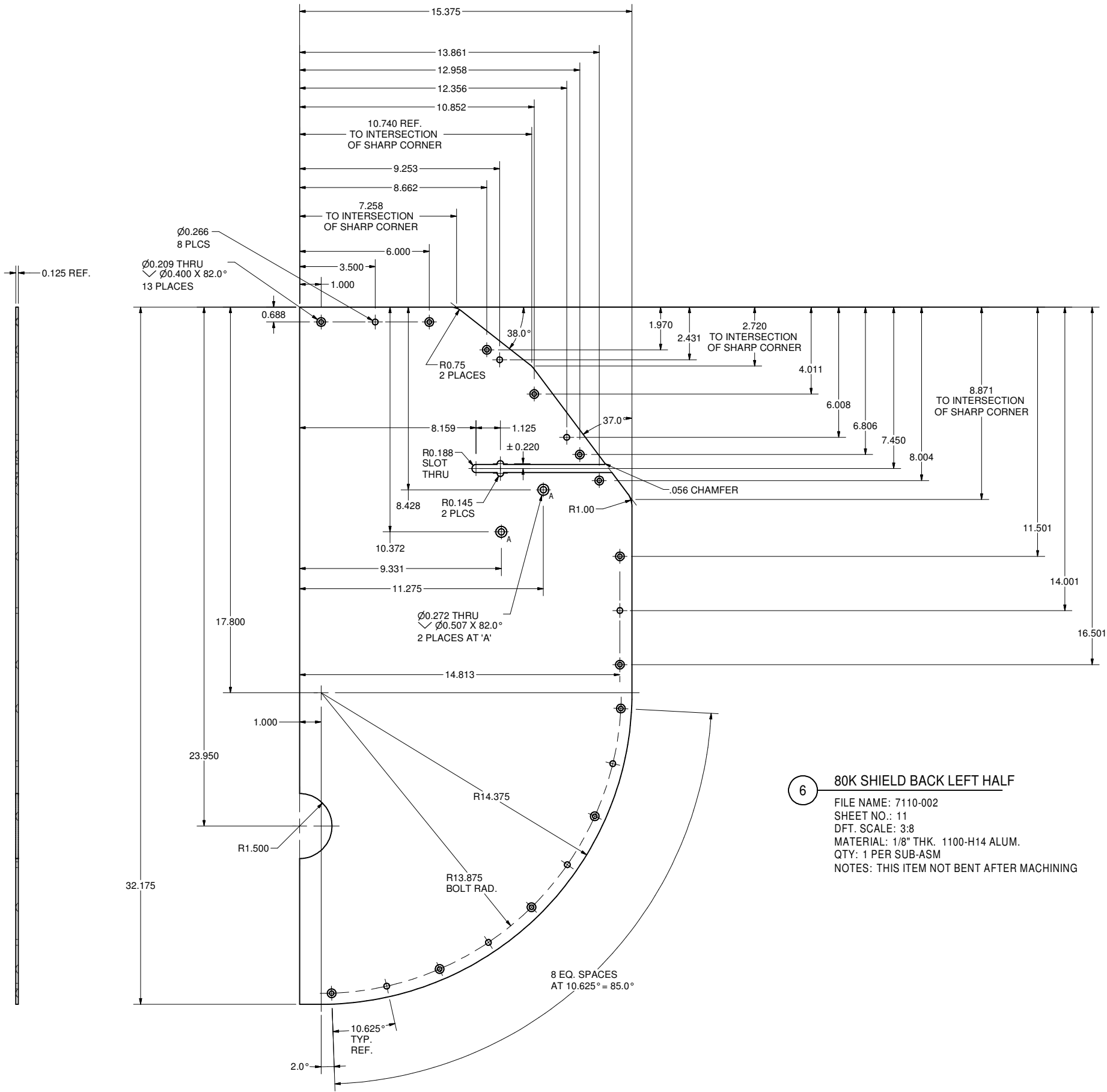
5 80K SHIELD FRONT LEFT HALF, SUB-ASM

FILE NAME: 7110-002
SHEET NO.: 9
DFT. SCALE: 1:4
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM
NOTES:

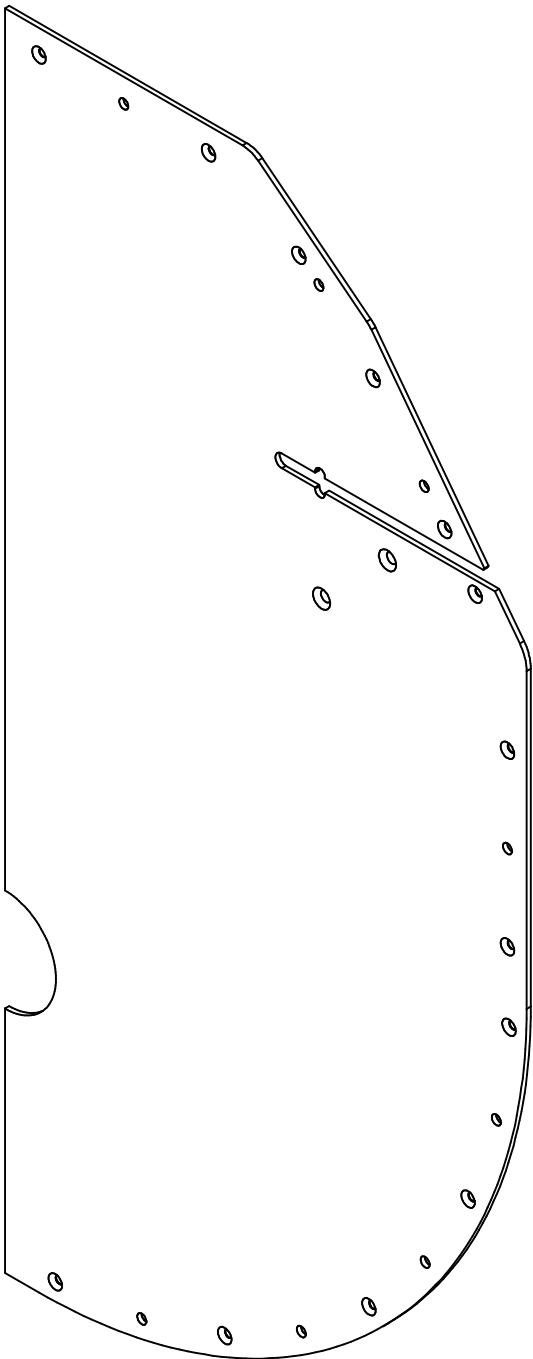
44		Slotted Flat Csk Hd Cap Scr 10-32UNFx1/2 Lg.	3	Alum
7	Sh.12	80K Shield 8.50" Port. Sub-Asm	1	
5.1	Sh.9	80K Shield Front Left Half	1	
5	Sh.9	80K Shield Front Left Half, Sub-Asm	1	X

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.	
								QUANTITY					
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw											
		CR-1	<div>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓</div>	<div><div><div>CORNELL UNIVERSITY</div><div></div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div><div><div>CORNELL UNIVERSITY</div><div>Floyd R. Newman Laboratory</div><div>Ithaca, NY 14853</div></div></div>									
	ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD												
	80K Shield Front Left Half, Sub-Asm												
	7110-002 SH. NO. 9 OF 31												
REV.	CHECKED BY: VM		DRAWN BY		DRAWN FOR		DATE		SCALE		D	7110-002 SH. NO. 9 OF 31	REV.
	APPROVED BY: MUL		TMK		VGV		8/15/2006						






REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



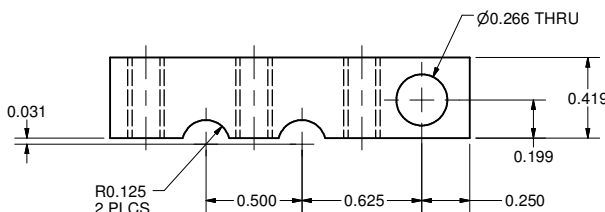
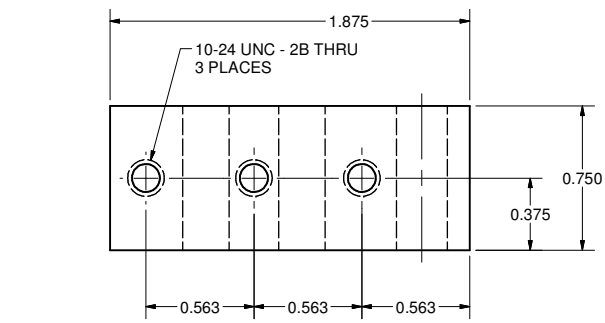
6 80K SHIELD BACK LEFT HALF
FILE NAME: 7110-002
SHEET NO.: 11
DFT. SCALE: 3:8
MATERIAL: 1/8" THK. 1100-H14 ALUM.
QTY: 1 PER SUB-ASM
NOTES: THIS ITEM NOT BENT AFTER MACHINING



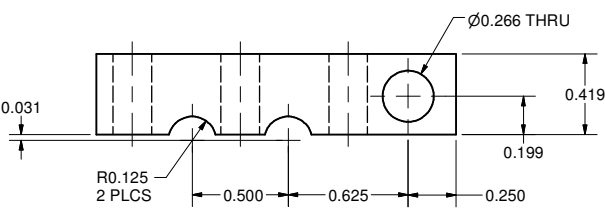
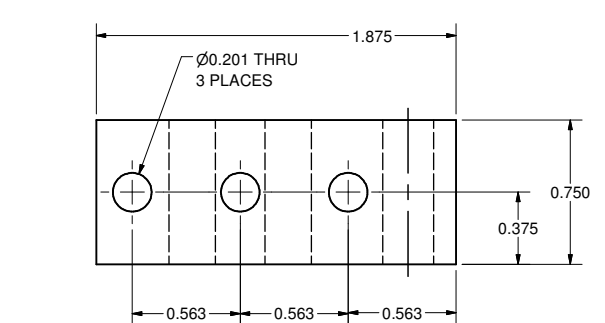
SCALE 1:2

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
	7110-002 SH. NO. 11 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 	CORNELL UNIVERSITY  CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS						
ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Back Left Half, Detail										
CHECKED BY: VM				DRAWN BY	DRAWN FOR	DATE	SCALE		7110-002 SH. NO. 11 OF 31	
APPROVED BY: MUL	TMK	VGW	8/15/2006							
REV.										

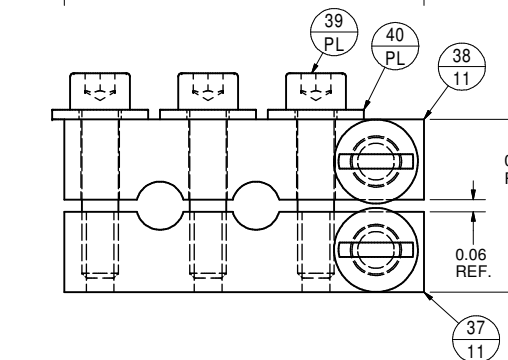
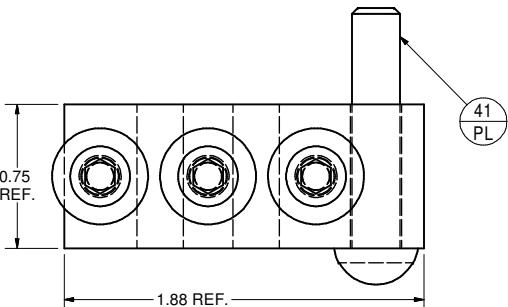
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



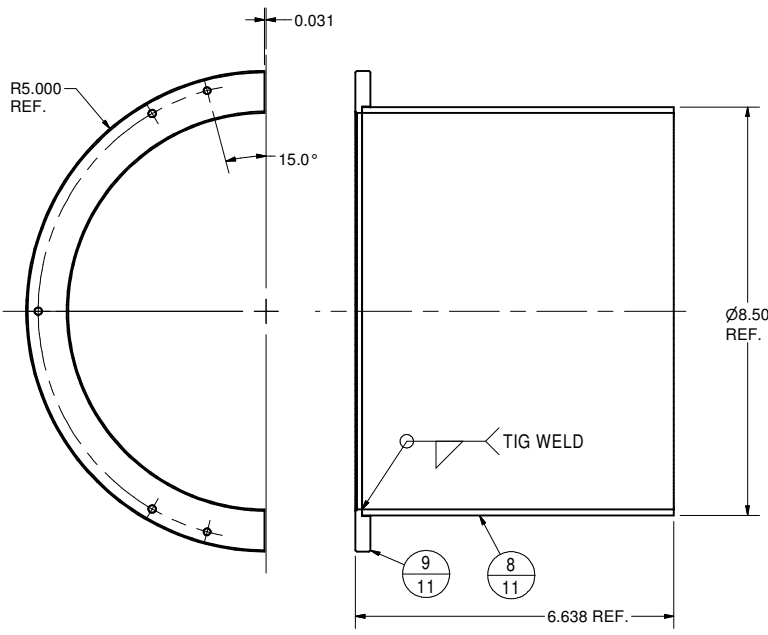
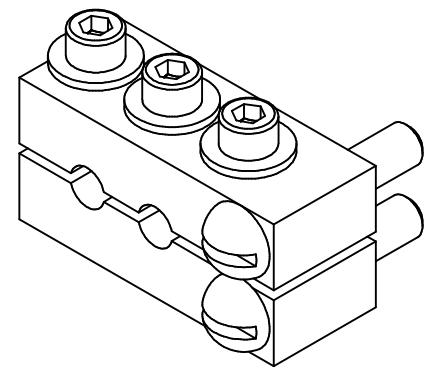
37 CONTROL TUBING CLAMP 1
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 2:1
MATERIAL: 6063 ALUM
QTY: 1 PER SUB-ASM
NOTES:



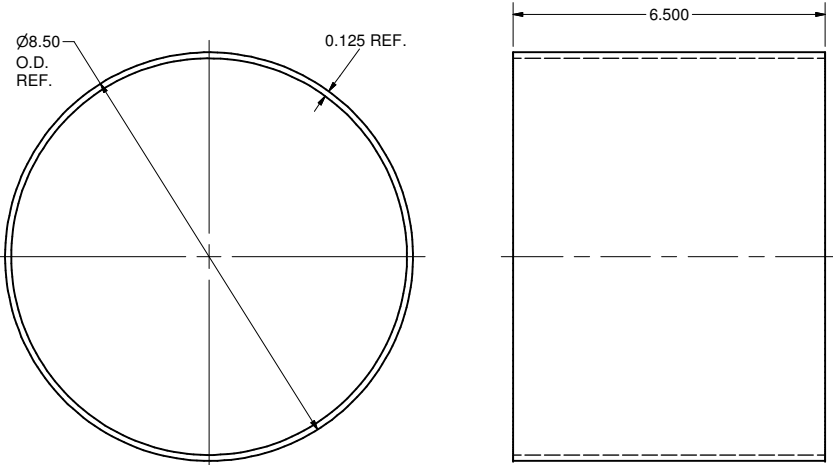
38 CONTROL TUBING CLAMP 2
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 2:1
MATERIAL: 6063 ALUM
QTY: 1 PER SUB-ASM
NOTES:



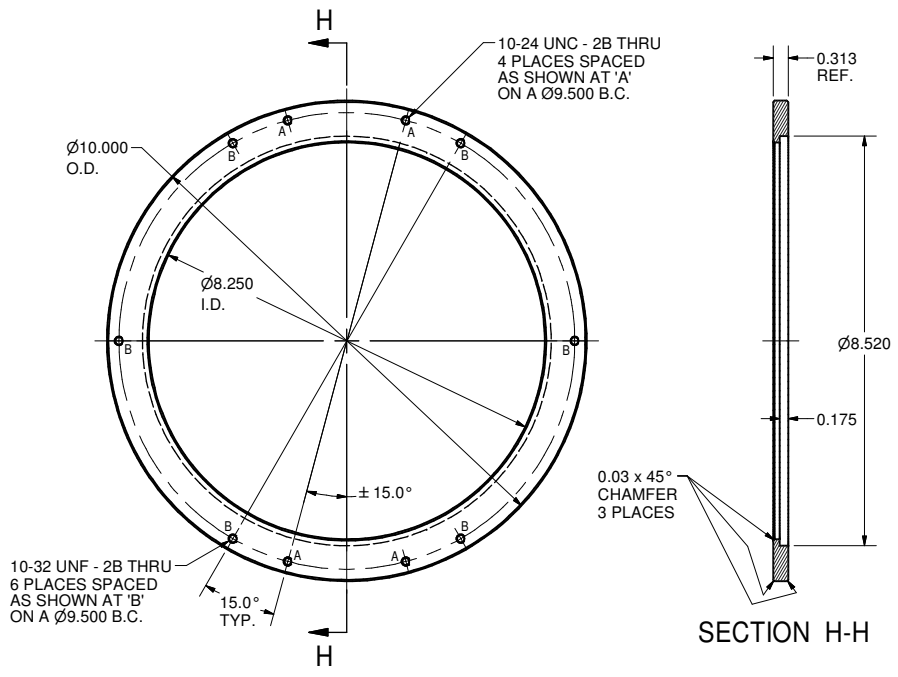
36 CONTROL TUBING CLAMP, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 2:1
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM
NOTES:



7 80K SHIELD 8.50" PORT, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 1:2
MATERIAL: AS NOTED
QTY: 1 REQ'D PER SUB-ASM
NOTES: AFTER WELDING CUT INTO TWO
EQUAL HALVES AS SHOWN.
EACH WILL BE USED IN
DIFFERENT SUB-ASSEMBLIES.






8 80K 8.50" O.D. TUBE
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 1:2
MATERIAL: 8.50 O.D. x .125 WALL 1100-H14 ALUM TUBE
QTY: 1 REQ'D
NOTES:

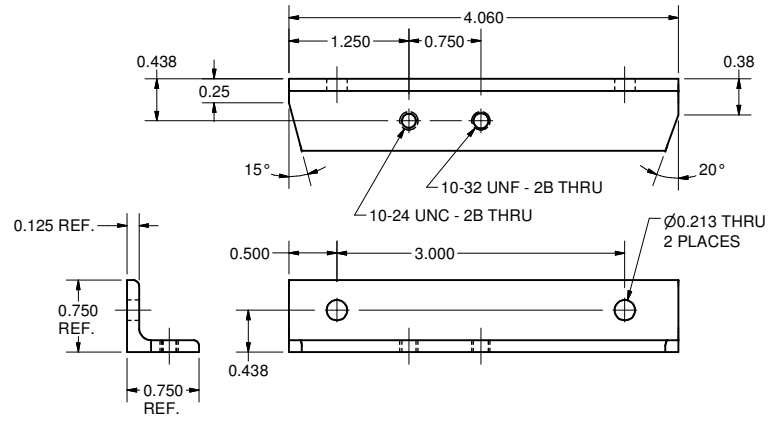


9 80K 8.50" FLANGE
FILE NAME: 7110-002
SHEET NO.: 12
DFT. SCALE: 1:2
MATERIAL: 5/16" 1100-H14 ALUM SHEET
QTY: 1 REQ'D
NOTES:

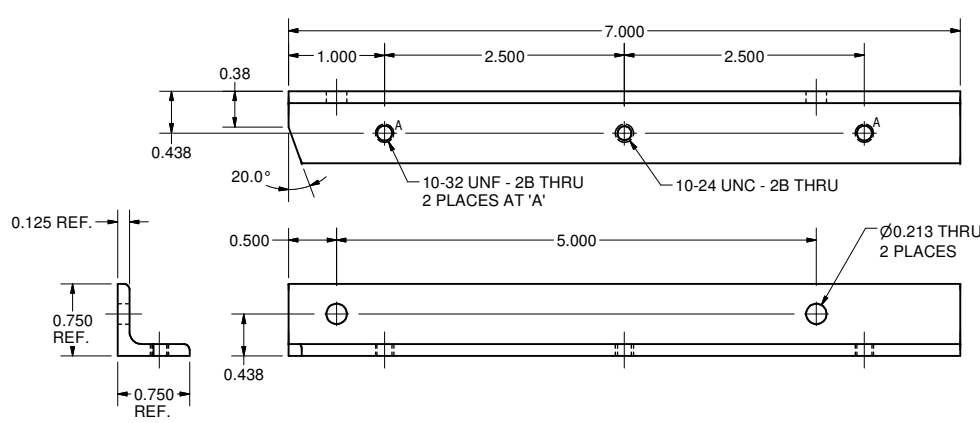
41	Slotted Round Hd Cap Scr 1/4-20UNC x 1.25 Lg.	2	Alum
40	Washer Plain Type 'A' #10	3	316 Stn Stl
39	Hex Soc Hd Cap Scr 10-24UNC x 7/8 Lg.	3	316 Stn Stl
38	Sh.12 Control Clamp 2	1	
37	Sh.12 Control Clamp 1	1	
36	Sh.12 Control Tubing Clamp, Sub-Asm	1	X
9	Sh.12 80K 8.50" Flange	1	
8	Sh.12 80K 8.50" O.D Tube	1	
7	Sh.12 80K Shield 8.50" O.D. Port, Sub-Asm	2	X

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.	
							QUANTITY				
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw									
		CR-1	UNLESS OTHERWISE SPECIFIED:		 CORNELL UNIVERSITY LEPP LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS			CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853			
DIMENSIONS ARE IN INCHES:											
TOLERANCES ON:			ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K 8.50" O.D. Tube, Sub-Asm and Details								
.00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 											
SH. NO. 12 OF 31	7110-002	REV.	CHECKED BY: VM	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7110-002	REV.	
			APPROVED BY: MUL	TMK	VG	8/15/2006					

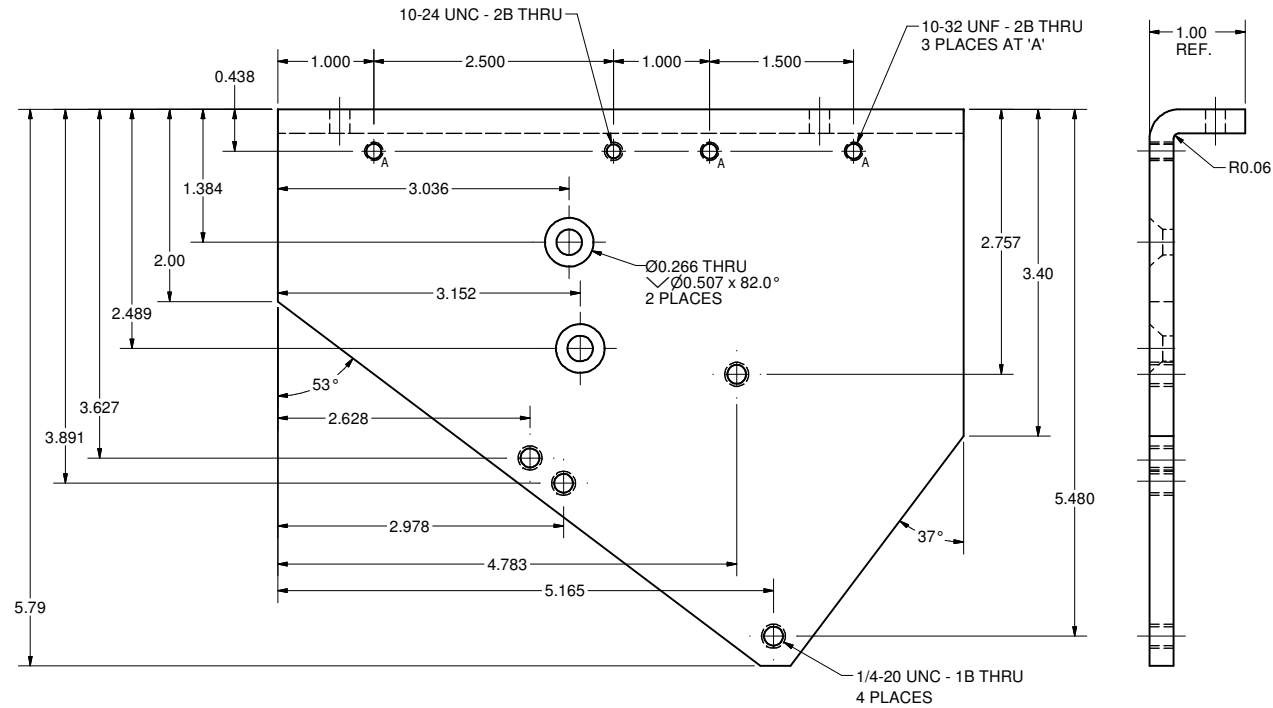
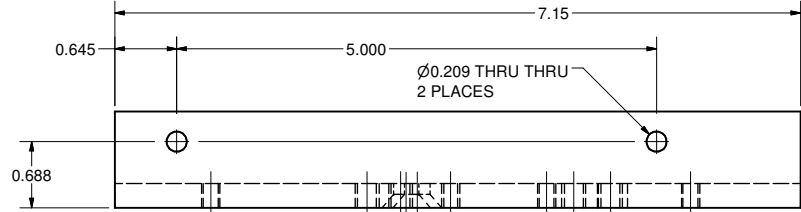
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



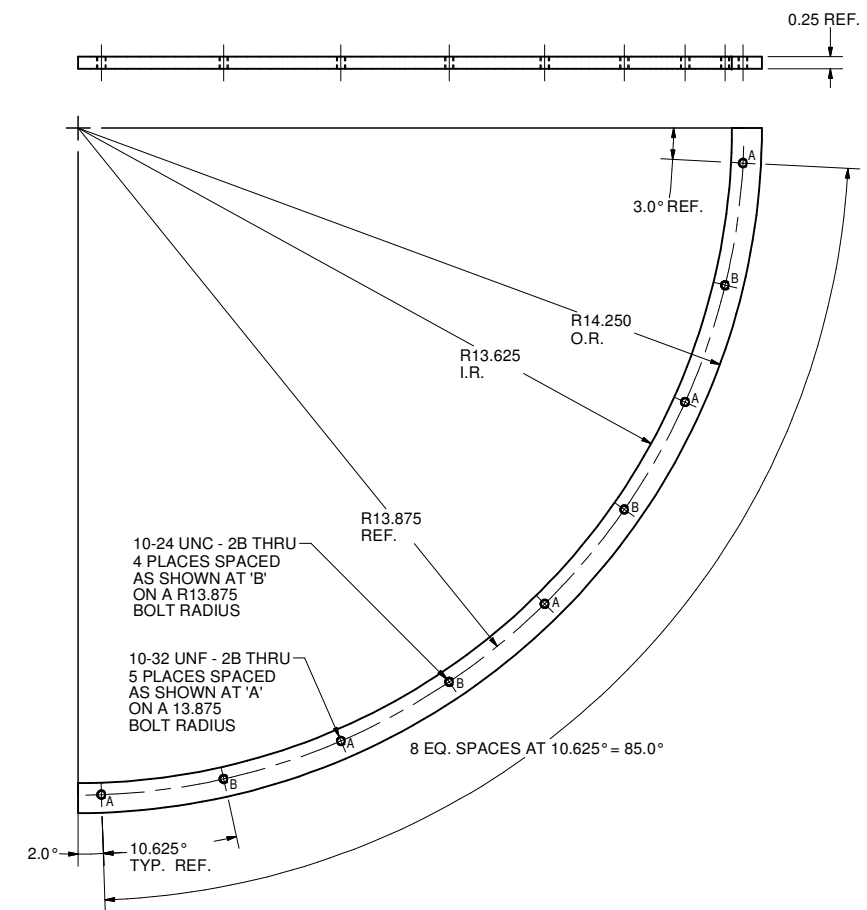
22 **ANGLE 2**
FILE NAME: 7110-002
SHEET NO.: 13
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:



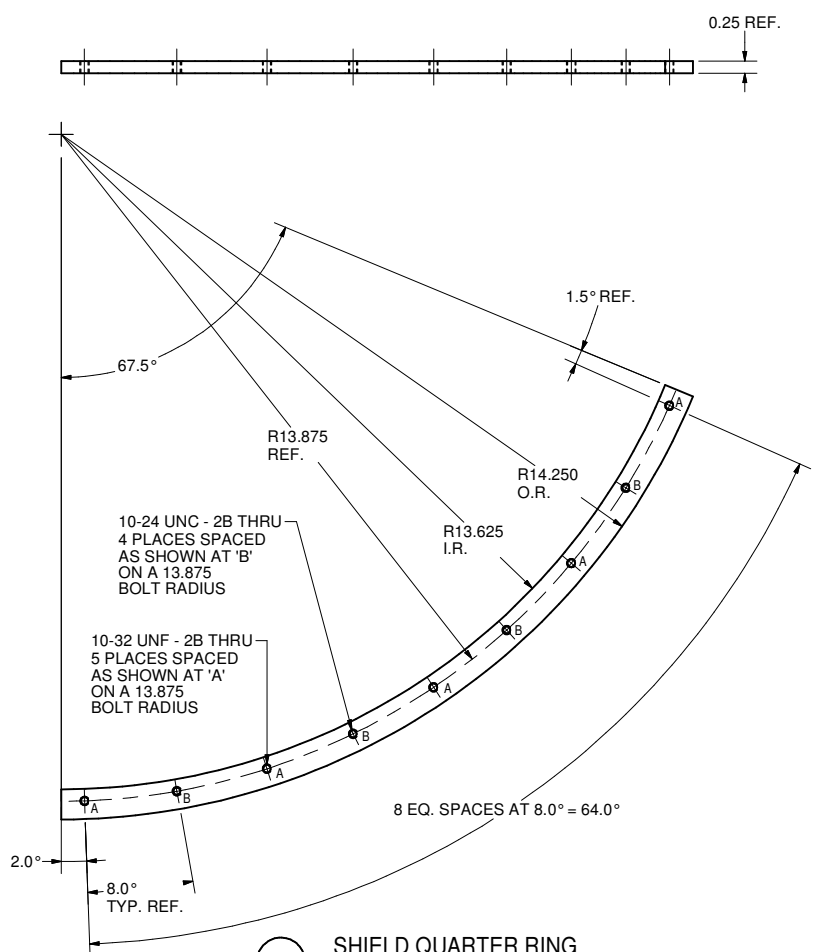
21 **ANGLE 1**
FILE NAME: 7110-002
SHEET NO.: 13
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:



19 **ANGLE 3-4**
FILE NAME: 7110-002
SHEET NO.: 13
DFT. SCALE: 1:1
MATERIAL: 1/4" OFHC COPPER SHEET
QTY: 1 PER SUB-ASM
NOTES: DEVELOPED LENGTH = 6.437



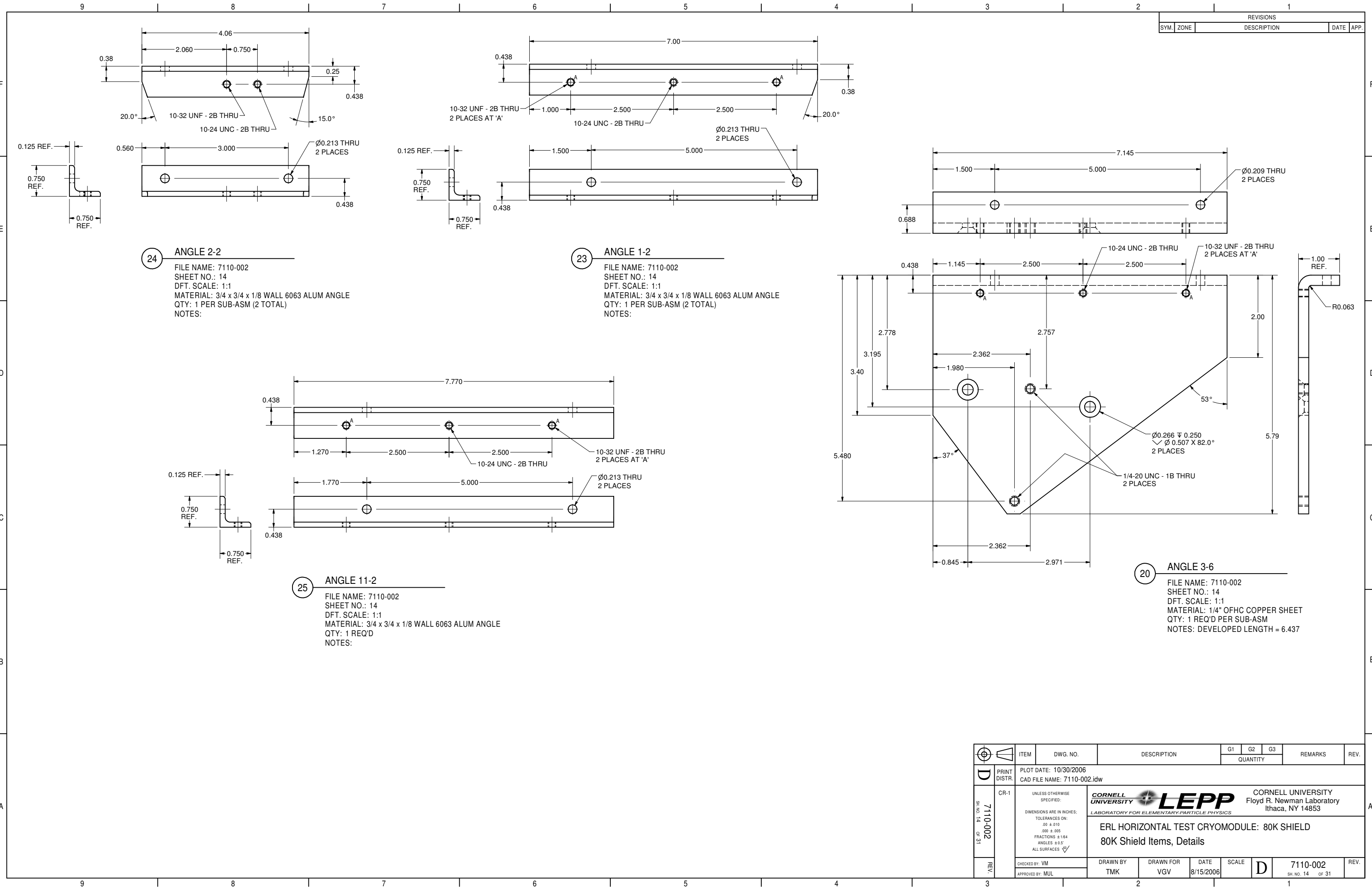
17 **SHIELD QUARTER RING 2**
FILE NAME: 7110-002
SHEET NO.: 13
DFT. SCALE: 1:2
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:



18 **SHIELD QUARTER RING**
FILE NAME: 7110-002
SHEET NO.: 13
DFT. SCALE: 1:2
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:

D	PRINT DISTR.	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
		QUANTITY							
7110-002 SH. NO. 13 OF 31	CR-1	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw							
		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES		CORNELL UNIVERSITY LEPP LABORATORY FOR ELEMENTARY PARTICLE PHYSICS CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Items, Details					
REV.	CHECKED BY: VM APPROVED BY: MUL	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 13 OF 31		REV.	

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.








24 ANGLE 2-2
FILE NAME: 7110-002
SHEET NO.: 14
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:

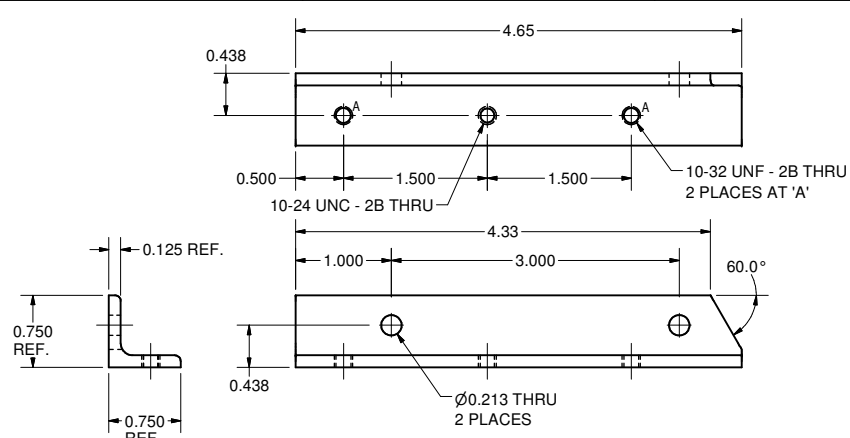
23 ANGLE 1-2
FILE NAME: 7110-002
SHEET NO.: 14
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:

25 ANGLE 11-2
FILE NAME: 7110-002
SHEET NO.: 14
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 REQ'D
NOTES:

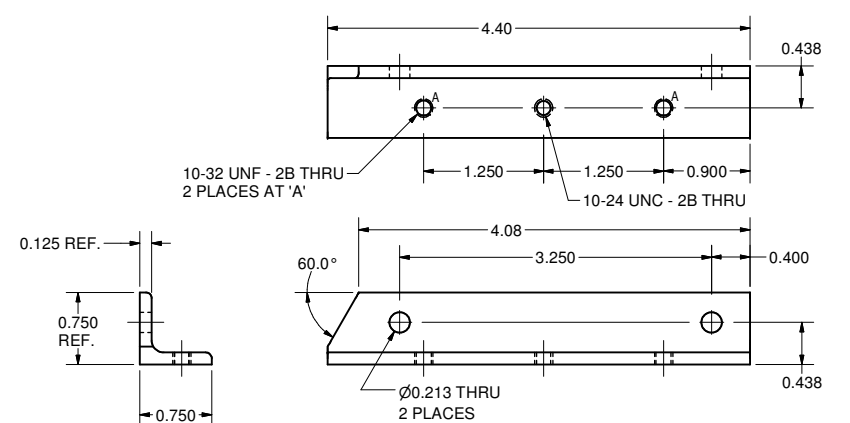
20 ANGLE 3-6
FILE NAME: 7110-002
SHEET NO.: 14
DFT. SCALE: 1:1
MATERIAL: 1/4" OFHC COPPER SHEET
QTY: 1 REQ'D PER SUB-ASM
NOTES: DEVELOPED LENGTH = 6.437

		ITEM		DWG. NO.		DESCRIPTION			G1		G2		G3		REMARKS		REV.		
									QUANTITY										
		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw															
7110-002 SH. NO. 14 OF 31		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853													
						ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Items, Details													
						CHECKED BY: VM		DRAWN BY		DRAWN FOR		DATE		SCALE				7110-002 SH. NO. 14 OF 31	
APPROVED BY: MUL		TMK		VGV		8/15/2006													

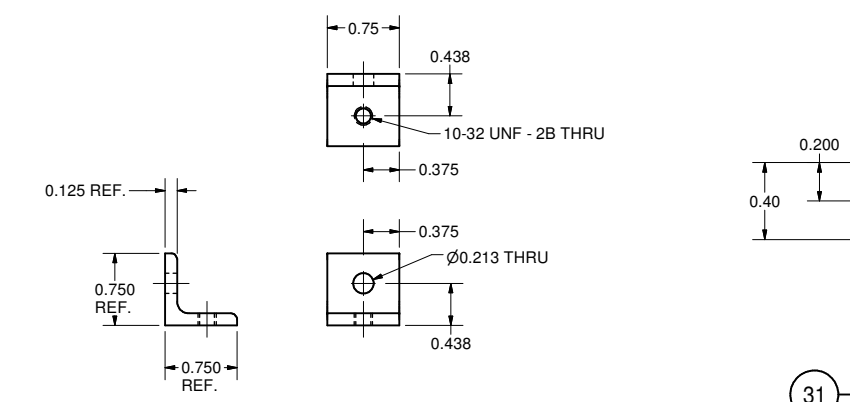
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



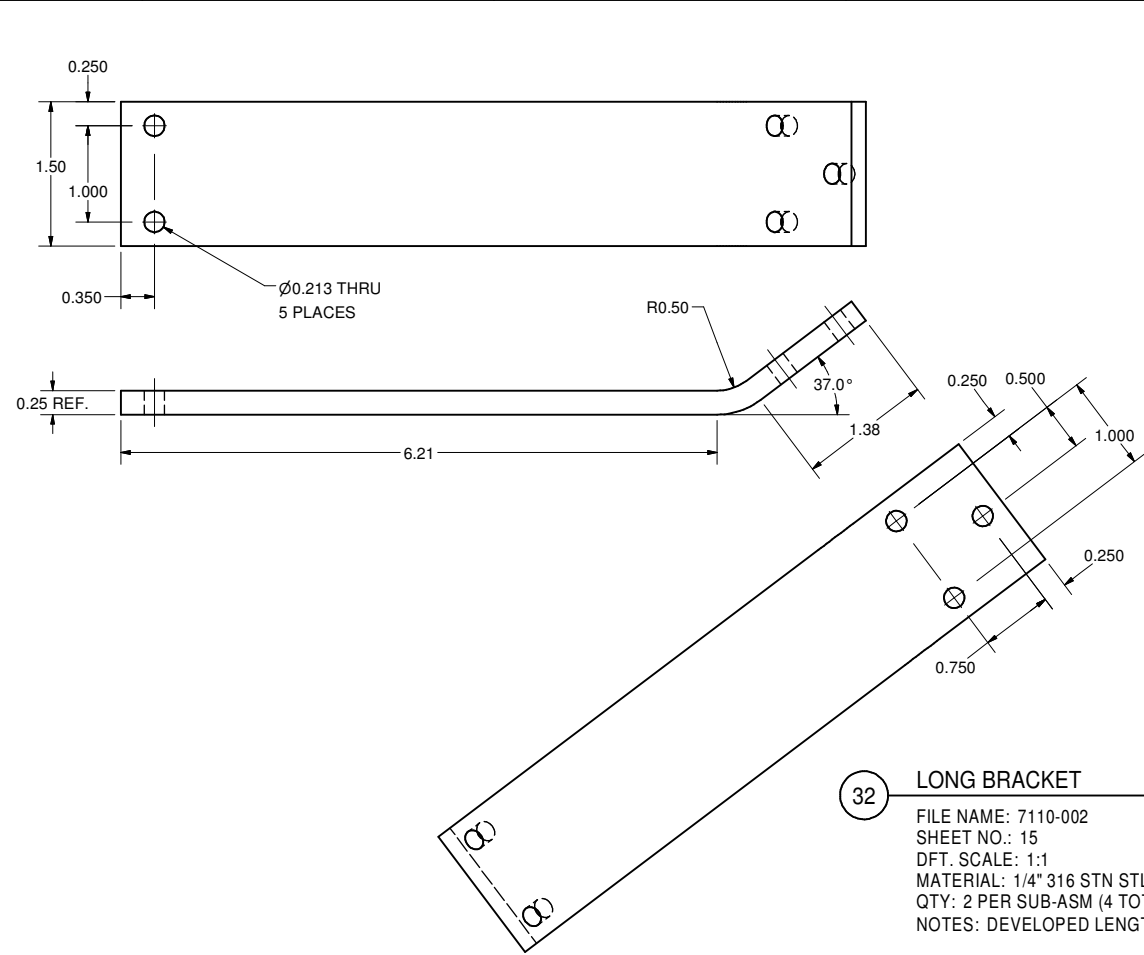
26 **ANGLE 4-2**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 REQ'D
NOTES:



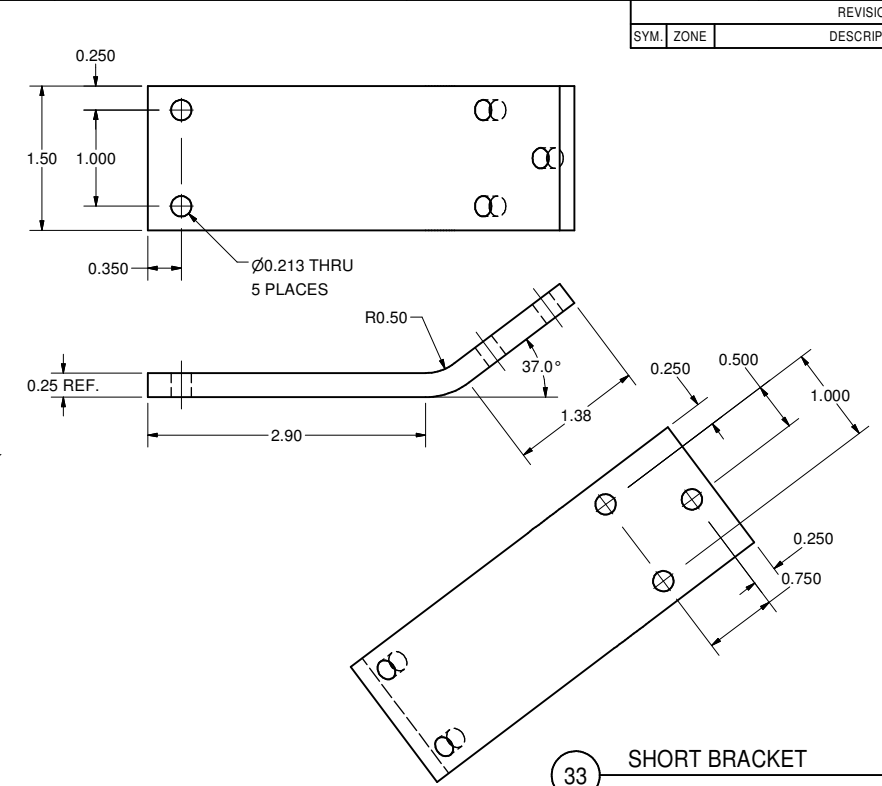
27 **ANGLE 6-2**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 1 REQ'D
NOTES:



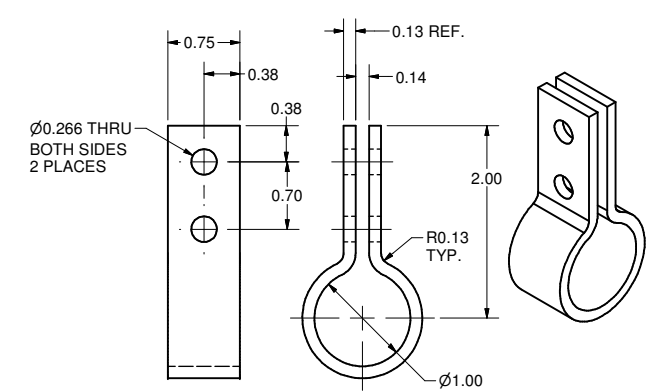
28 **ANGLE 7-1**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 3/4 x 3/4 x 1/8 WALL 6063 ALUM ANGLE
QTY: 2 PER SUB-ASM (4 TOTAL)
NOTES:



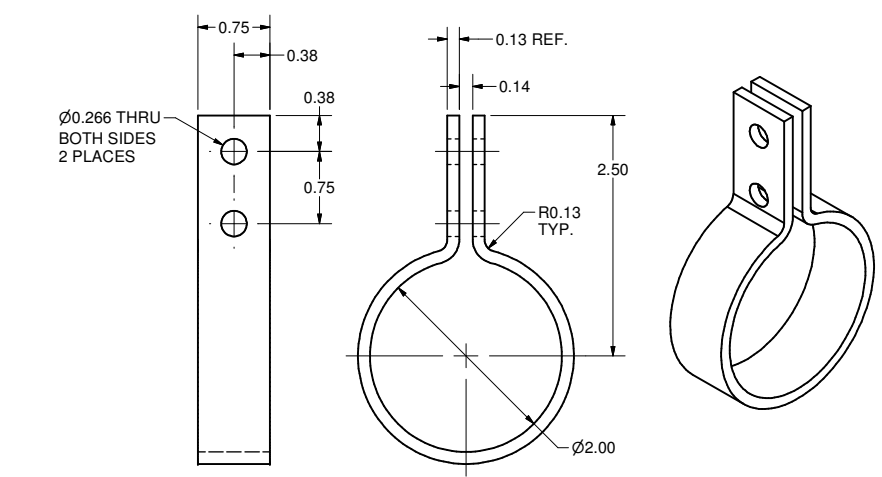
32 **LONG BRACKET**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 1/4" 316 STN STL SHEET
QTY: 2 PER SUB-ASM (4 TOTAL)
NOTES: DEVELOPED LENGTH = 7.983



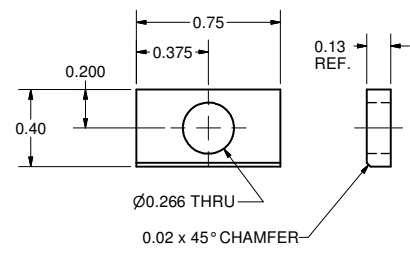
33 **SHORT BRACKET**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 1/4" 316 STN STL SHEET
QTY: 2 PER SUB-ASM (4 TOTAL)
NOTES: DEVELOPED LENGTH = 4.665







30 **1" COPPER CLAMP**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 1/8" OFHC COPPER SHEET
QTY: 2 PER SUB-ASM (4 TOTAL)
NOTES: DEVELOPED LENGTH = 6.048



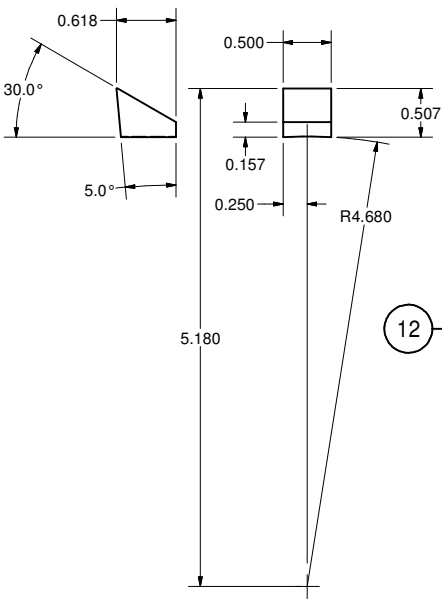
29 **2" COPPER CLAMP**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 1:1
MATERIAL: 1/8" OFHC COPPER SHEET
QTY: 10 PER SUB-ASM (20 TOTAL)
NOTES: DEVELOPED LENGTH = 9.138



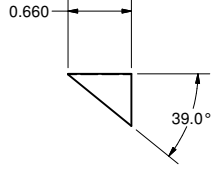
31 **CLAMP SPACER**
FILE NAME: 7110-002
SHEET NO.: 15
DFT. SCALE: 2:1
MATERIAL: 1/8" 316 STN STL SHEET
QTY: 24 PER SUB-ASM (48 TOTAL)
NOTES:

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
	QUANTITY									
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
	7110-002 SH. NO. 15 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS: 1/64 ANGLES ± 0.5° ALL SURFACES 			<div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div> <div> LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div> <div>ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Items, Details</div>				
CHECKED BY: VM										
APPROVED BY: MUL	TMK	VGV	8/15/2006							

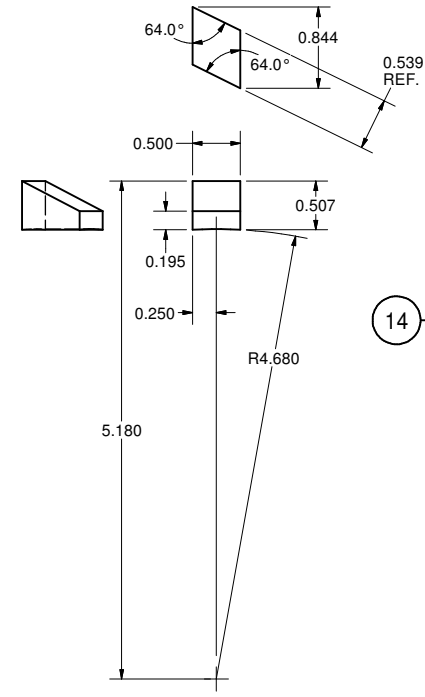
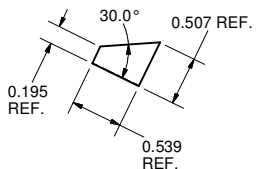
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



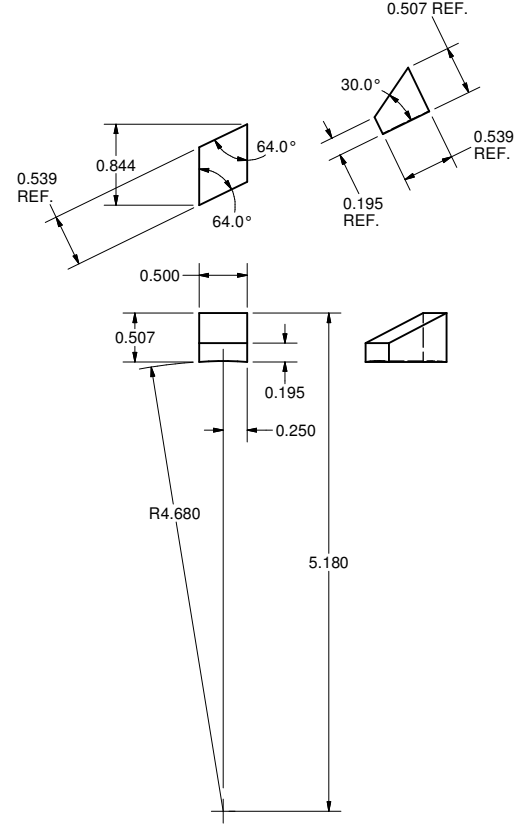
12 **COUPLER PORT BRACE 1**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:1
MATERIAL: 5/8" SQUARE 6063 ALUM BAR
QTY: 1 REQ'D
NOTES:



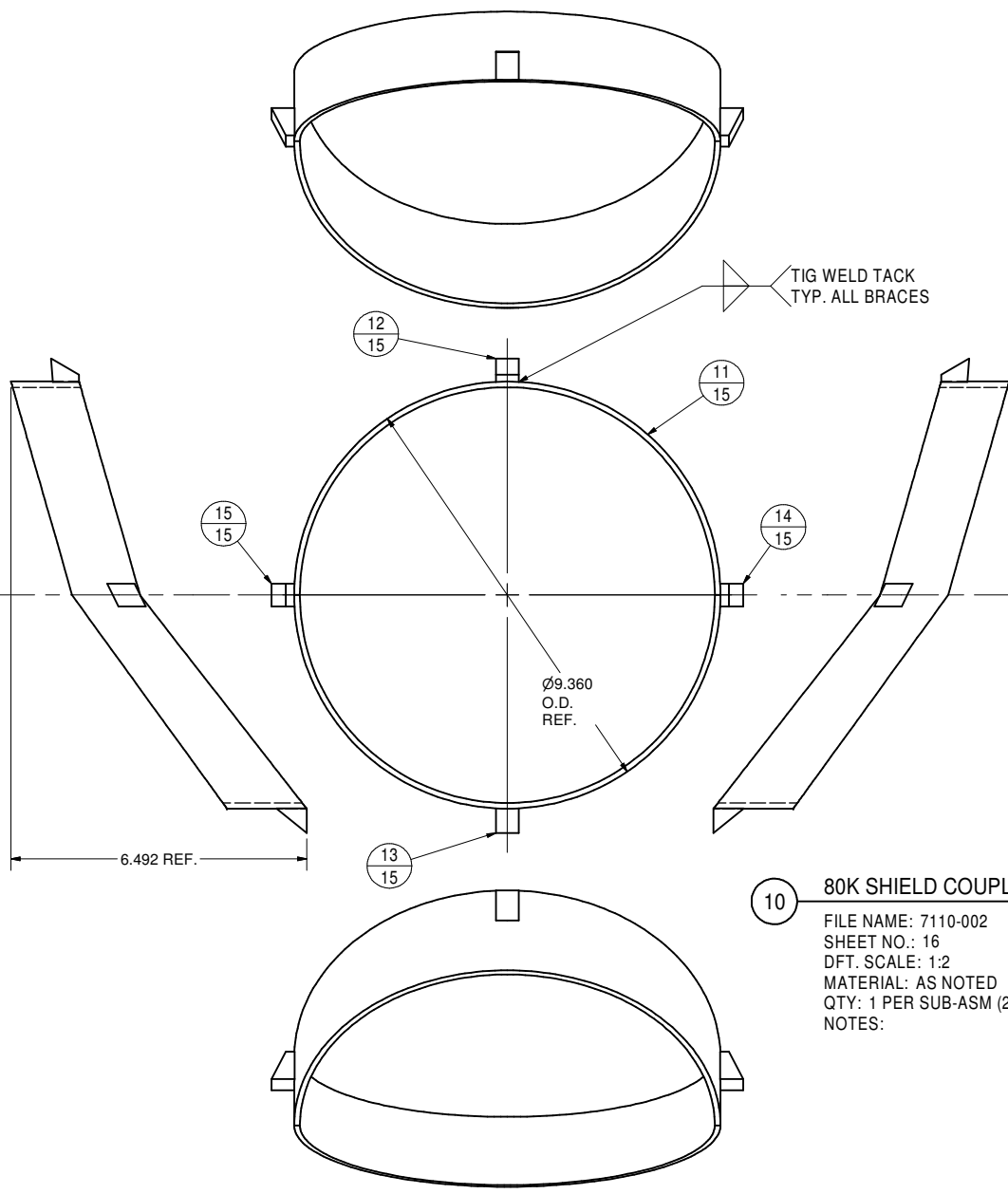
13 **COUPLER PORT BRACE 2**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:1
MATERIAL: 5/8" SQUARE 6063 ALUM BAR
QTY: 1 REQ'D
NOTES:



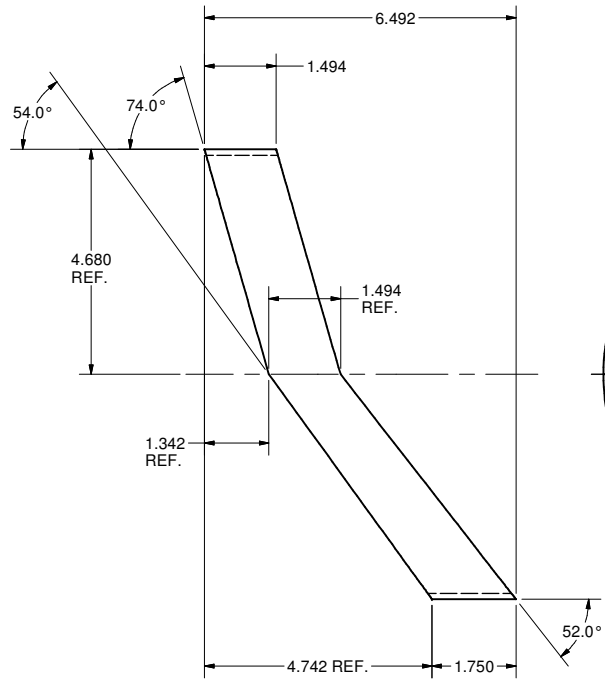
14 **COUPLER PORT BRACE 3**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:1
MATERIAL: 5/8" SQUARE 6063 ALUM BAR
QTY: 1 REQ'D
NOTES:



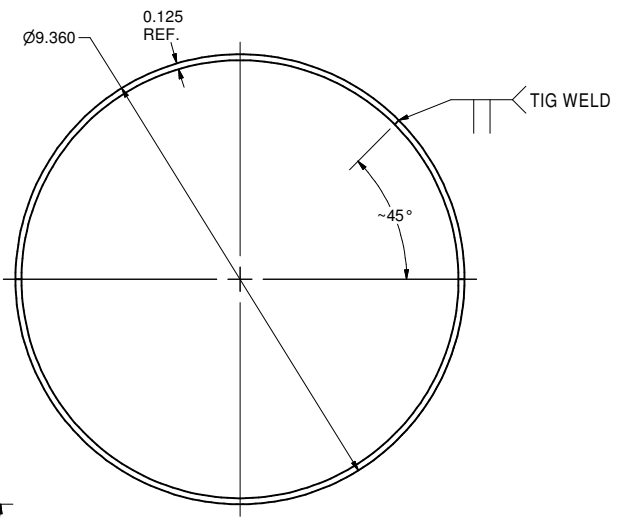
15 **COUPLER PORT BRACE 4**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:1
MATERIAL: 5/8" SQUARE 6063 ALUM BAR
QTY: 1 REQ'D
NOTES:



10 **80K SHIELD COUPLER PORT TUBE, SUB-ASM**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:2
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM (2 TOTAL)
NOTES:



11 **80K SHIELD COUPLER PORT TUBE**
FILE NAME: 7110-002
SHEET NO.: 16
DFT. SCALE: 1:2
MATERIAL: 1/8" THK. 1100-H14 ALUM. SHEET
QTY: 1 PER SUB-ASM
NOTES: DEVELOPED LENGTH = 28.964



15	Sh.16	Coupler Port Brace 4		1		
14	Sh.16	Coupler Port Brace 3		1		
13	Sh.16	Coupler Port Brace 2		1		
12	Sh.16	Coupler Port Brace 1		1		
11	Sh.16	80K Shield Coupler Port Tube		1		
10	Sh.16	80K Shield Coupler Port Tube, Sub-Asm	2	X		

D	PRINT DISTR.	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw			QUANTITY						
7110-002 SH. NO. 16 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES	CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY ITHACA, NY 14853 LEPP LABORATORY FOR ELEMENTARY PARTICLE PHYSICS								
		ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD Coupler Port Tube, Details and Sub-Asm									
REV.	CHECKED BY: VM APPROVED BY: MUL	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 16 OF 31	REV.				

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

F

E

D

C

B

A

F

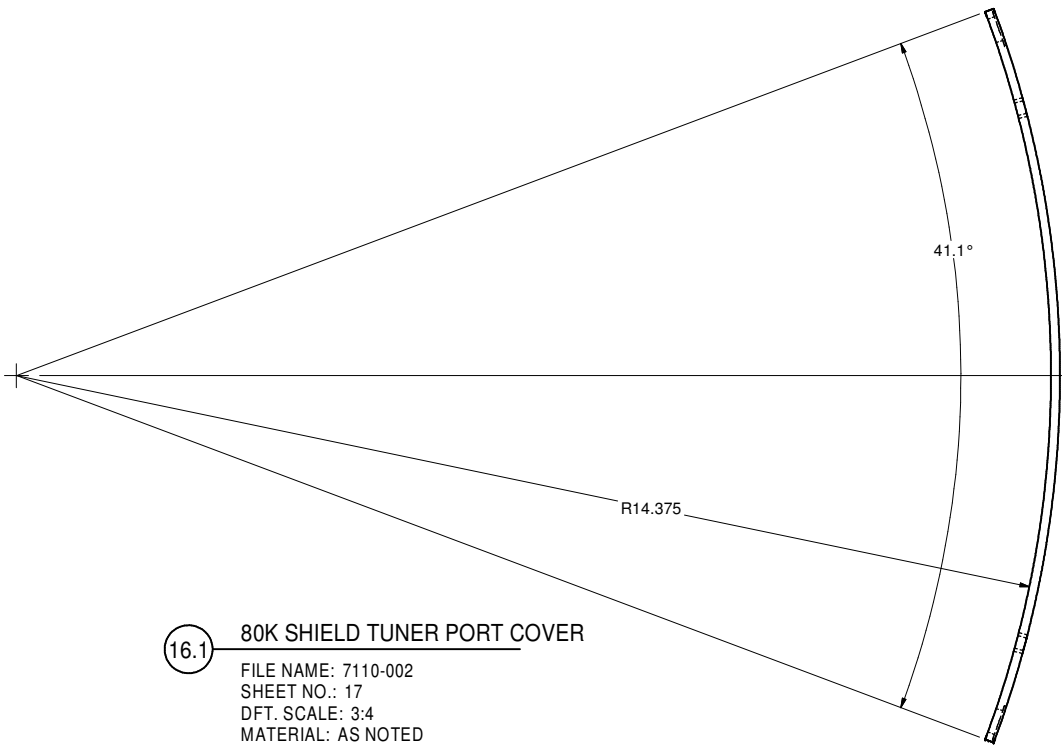
E

D

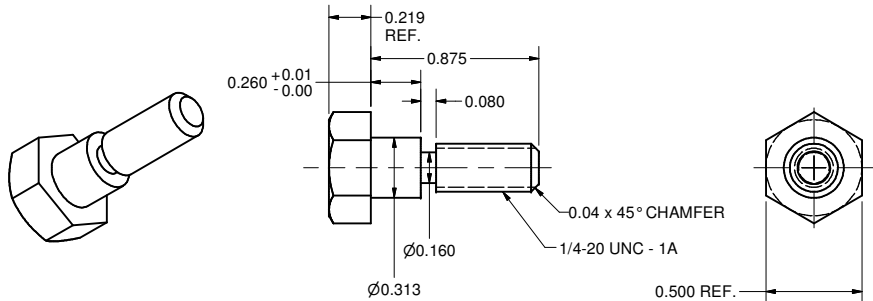
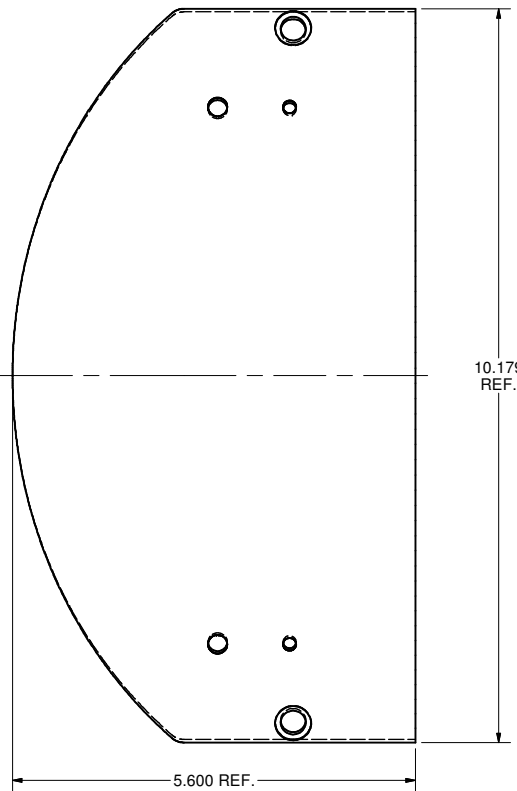
C

B

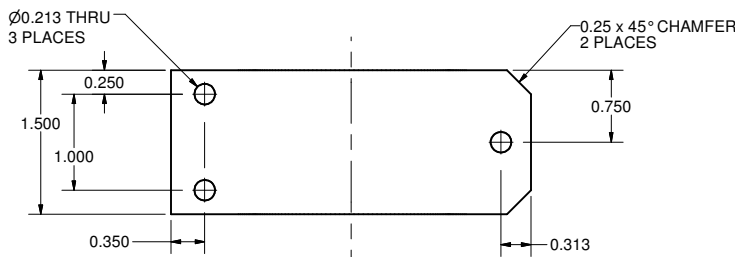
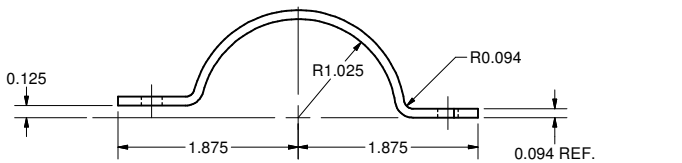
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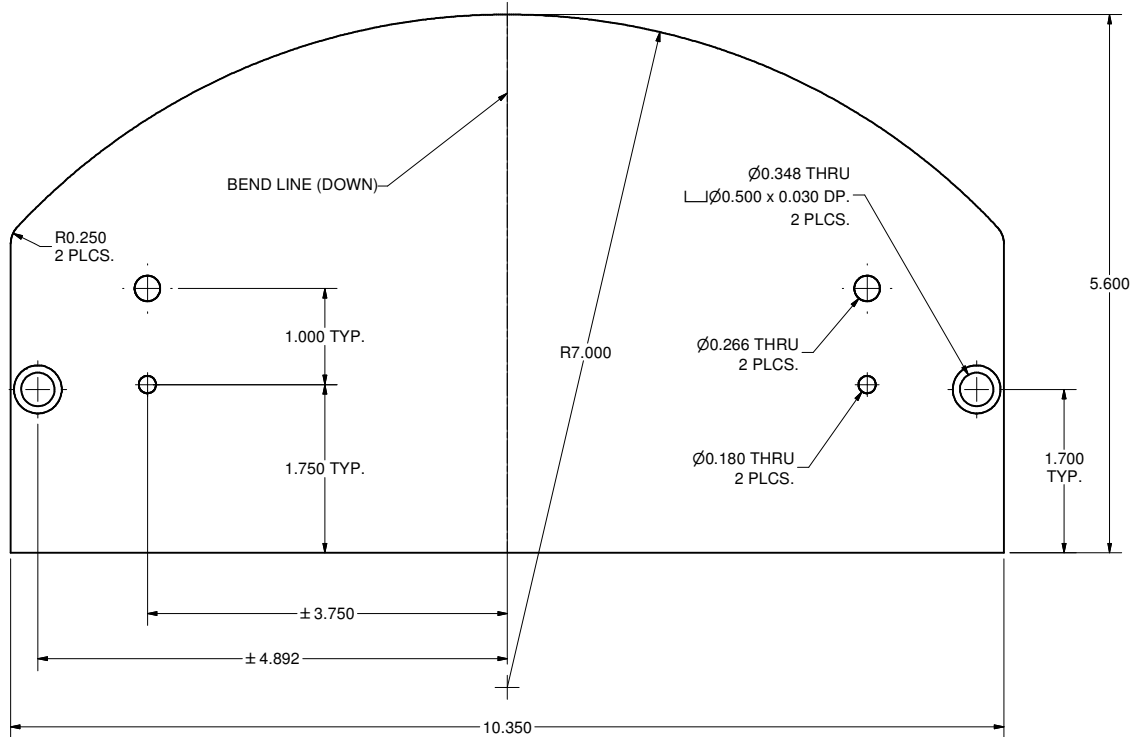
16.1 80K SHIELD TUNER PORT COVER
FILE NAME: 7110-002
SHEET NO.: 17
DFT. SCALE: 3:4
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM (4 TOTAL)
NOTES: SEE PART ITEM 16.2 FOR FLAT PATTERN



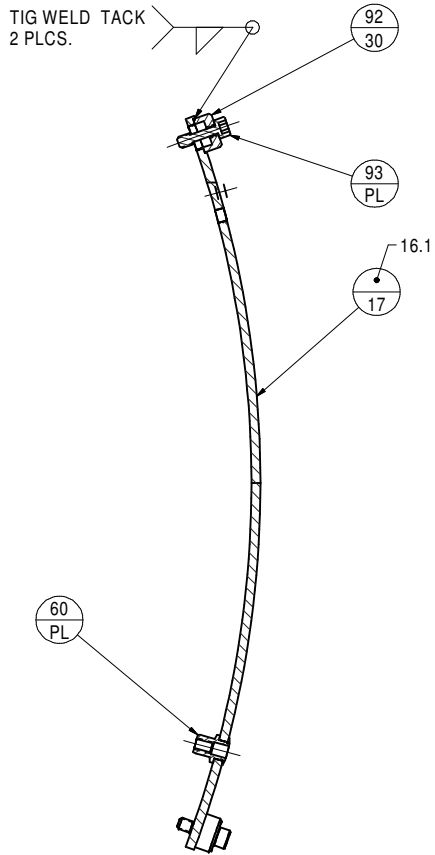
59 80K SHIELD SCREW
FILE NAME: 7110-002
SHEET NO.: 17
DFT. SCALE: 5:1
MATERIAL: MAKE FROM 5/16-24UNF x 1.00"LG. HEX HD CAP SCR - 316 STN STL
QTY: 4 REQ'D PER SUB-ASM (8 TOTAL)
NOTES:



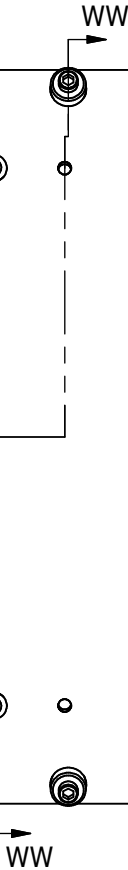
42 HALF RING CLAMP
FILE NAME: 7110-002
SHEET NO.: 17
DFT. SCALE: 1:1
MATERIAL: 0.094 THK. 316 STN STL SHEET
QTY: 2 PER SUB-ASM (16 TOTAL)
NOTES: DEVELOPED LENGTH = 4.655





16.2 80K SHIELD TUNER PORT COVER - FLAT PATTERN
FILE NAME: 7110-002
SHEET NO.: 17
DFT. SCALE: 1:1
MATERIAL: 1/8" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM (4 TOTAL)
NOTES:



SECTION WW-WW



16 TUNER PORT COVER, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 17
DFT. SCALE: 3:4
MATERIAL: AS NOTED
QTY: 2 PER SUB-ASM (4 TOTAL)
NOTES:

		93		Captive Hex Soc/Knurled Hd Panel Scr 8-32UNCx9/16Lg.				2	Stn Stl McMC #95966A323 or Equiv.			
		92	Sh.17	Tuner Cover Boss				2				
		60		Rivnut 8-32 UNC Alum				1	McMC #94020A323 or Equiv.			
		16.1	Sh.17	80K Shield Tuner Port Cover				1				
		16		Tuner Port Cover, Sub-Asm				1	X			
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.	
								QUANTITY				
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw										
	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓		 CORNELL UNIVERSITY LABORATORY FOR ELEMENTARY PARTICLE PHYSICS		CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853						
7110-002 <small>SH. NO. 17 OF 31</small>				ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD Tuner Port Cover + 80K Shield Screw, Details								
REV.		CHECKED BY: VM	DRAWN BY TMK		DRAWN FOR VGV		DATE 8/15/2006		SCALE	D	7110-002 <small>SH. NO. 17 OF 31</small>	REV.
		APPROVED BY: MUL										

9

8

7

6

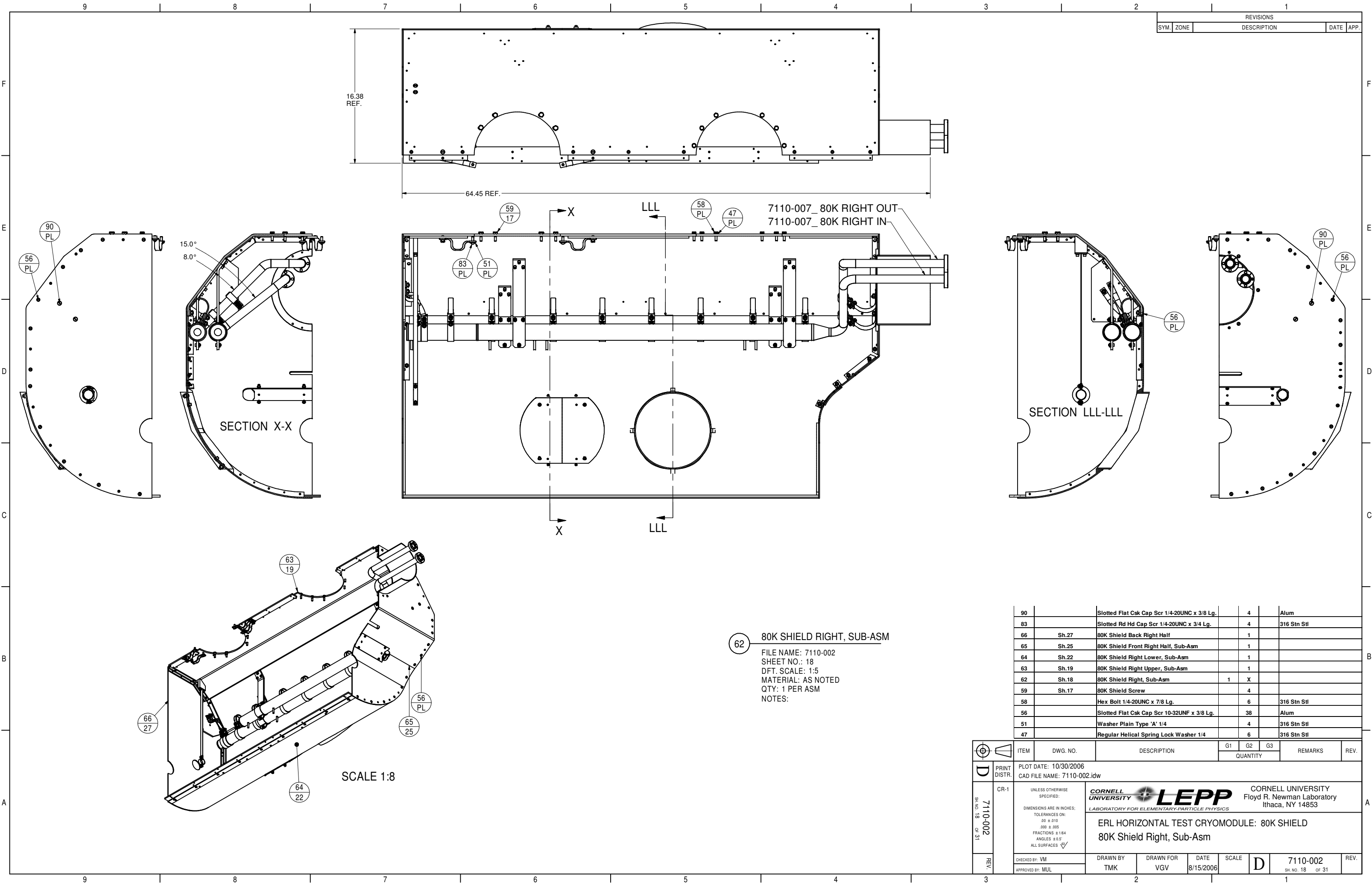
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4

3




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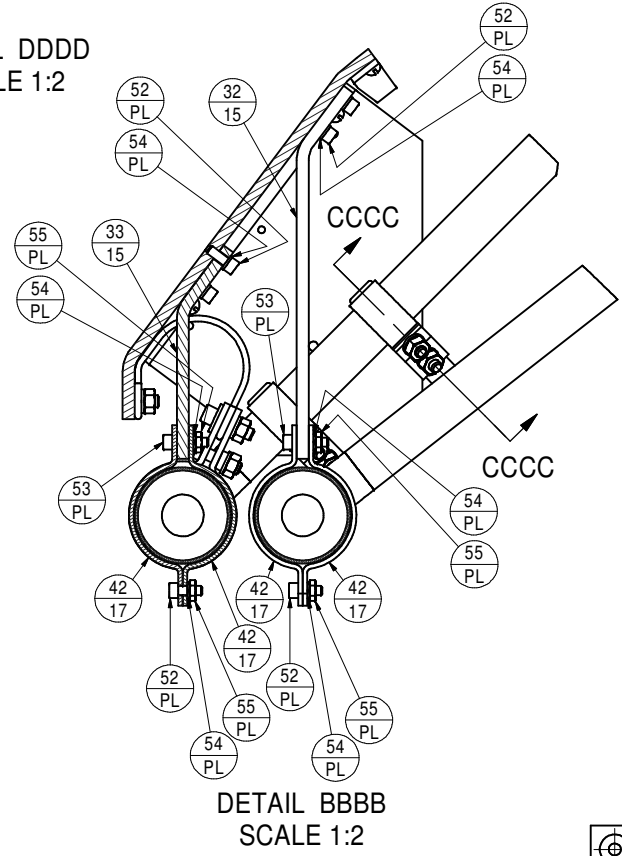
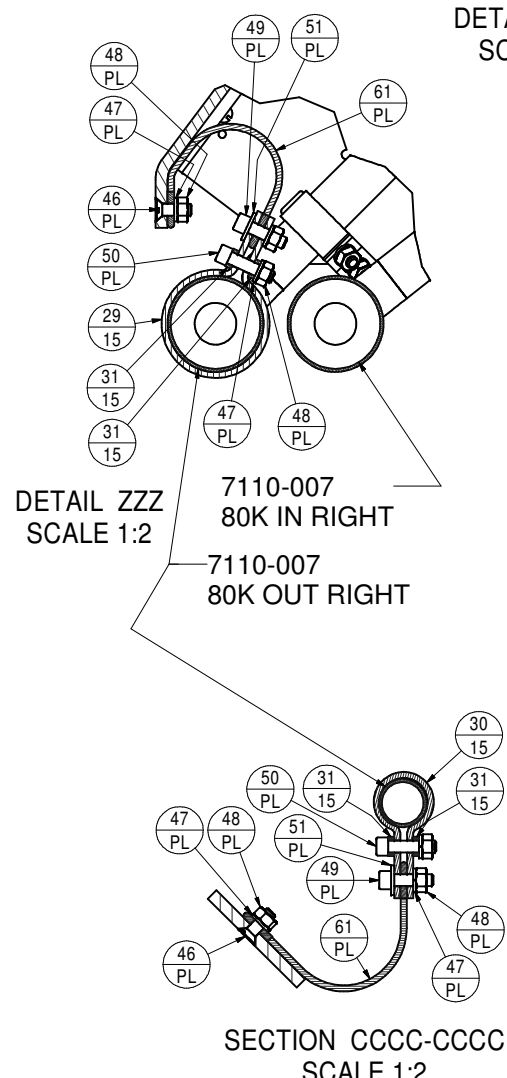
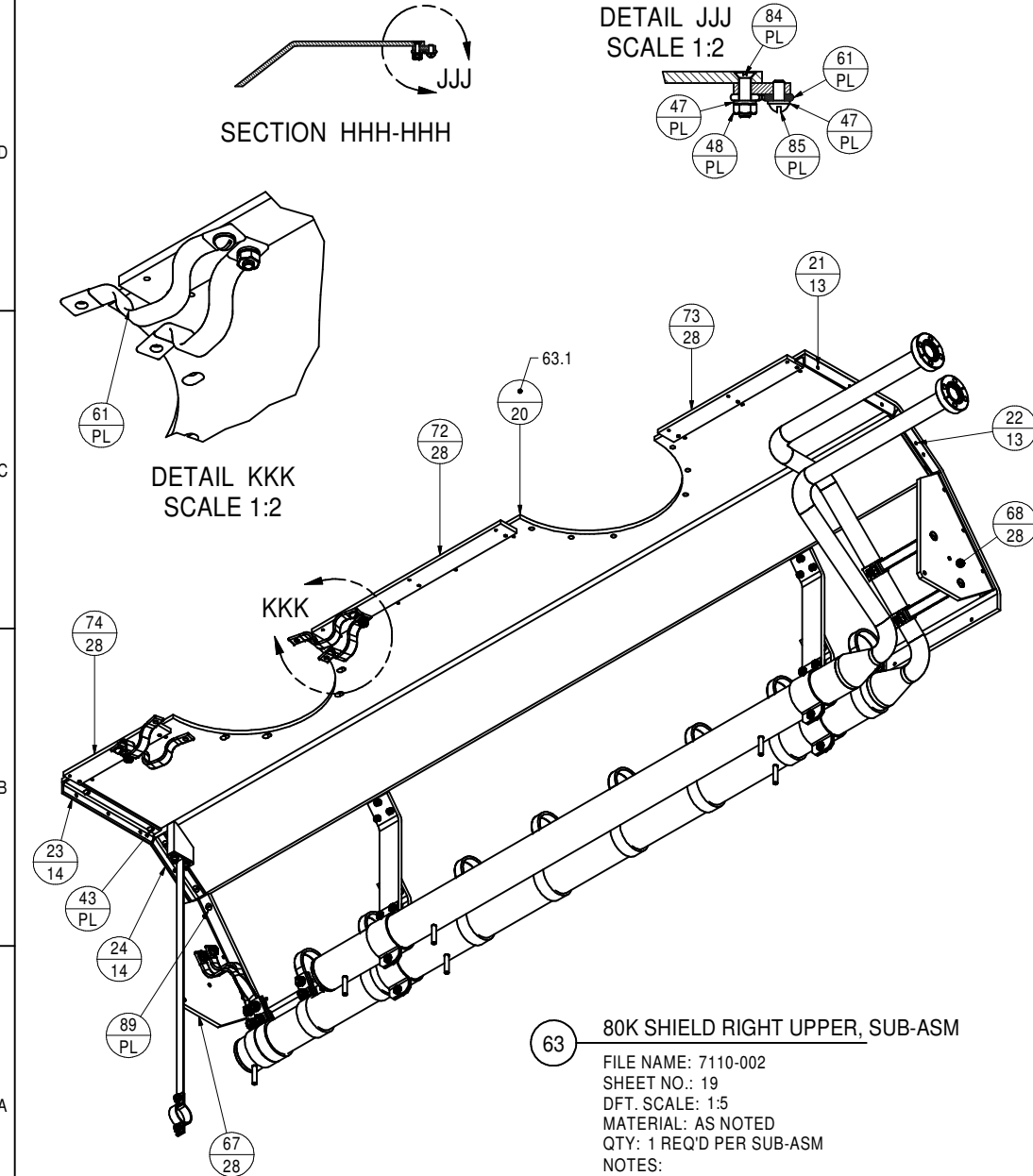
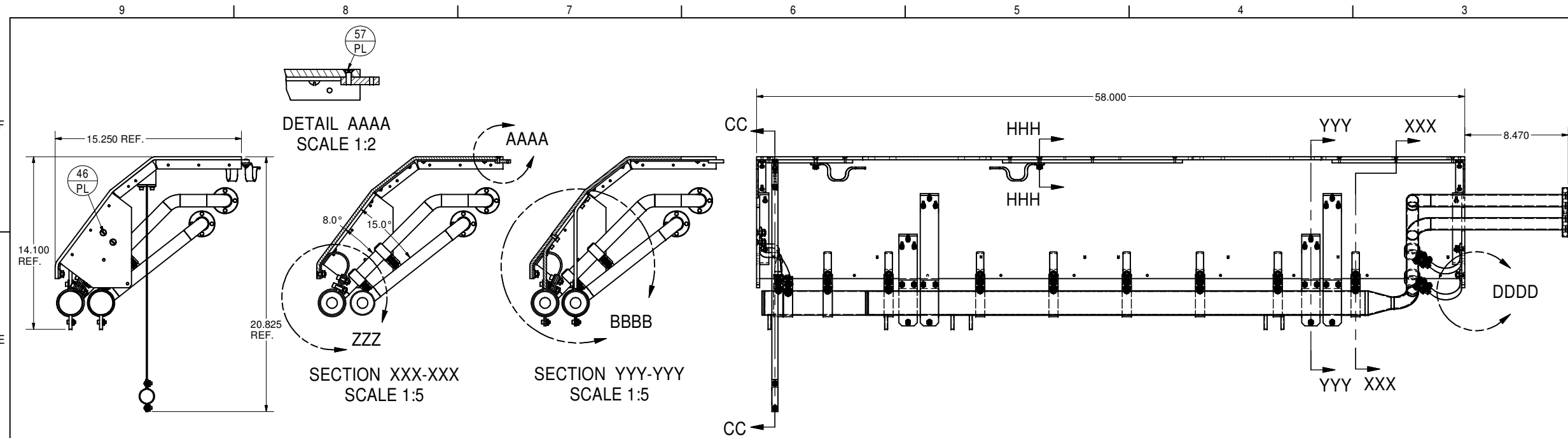


REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

90		Slotted Flat Csk Cap Scr 1/4-20UNC x 3/8 Lg.	4	Alum
83		Slotted Rd Hd Cap Scr 1/4-20UNC x 3/4 Lg.	4	316 Stn Stl
66	Sh.27	80K Shield Back Right Half	1	
65	Sh.25	80K Shield Front Right Half, Sub-Asm	1	
64	Sh.22	80K Shield Right Lower, Sub-Asm	1	
63	Sh.19	80K Shield Right Upper, Sub-Asm	1	
62	Sh.18	80K Shield Right, Sub-Asm	1	X
59	Sh.17	80K Shield Screw	4	
58		Hex Bolt 1/4-20UNC x 7/8 Lg.	6	316 Stn Stl
56		Slotted Flat Csk Cap Scr 10-32UNF x 3/8 Lg.	38	Alum
51		Washer Plain Type 'A' 1/4	4	316 Stn Stl
47		Regular Helical Spring Lock Washer 1/4	6	316 Stn Stl

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
	7110-002 SH. NO. 18 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓	CORNELL UNIVERSITY  CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS						
ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Right, Sub-Asm										
CHECKED BY: VM				DRAWN BY	DRAWN FOR	DATE	SCALE	D	7110-002 SH. NO. 18 OF 31	
APPROVED BY: MUL	TMK	VGV	8/15/2006							
REV.										

SYM.		ZONE	REVISIONS		DATE	APP.
			DESCRIPTION			



ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
89		Slotted Rd Hd Cap Scr 10-24UNCx1/2 Lg.				4	316 Stn Stl
86		Slotted Flat Csk Hd Cap Scr 1/4-20UNCx1/2 Lg.				2	316 Stn Stl Diconited
85		Slotted Rd Hd Cap Scr 1/4-20UNCx1/2 Lg.				2	316 Stn Stl
84		Slotted Flat Csk Hd Cap Scr 1/4-20UNCx1.00 Lg.				2	316 Stn Stl Diconited
77	Sh.31	WPM Top Support, Sub-Asm				1	
74	Sh.28	Top Plate 3				1	
73	Sh.28	Top Plate 2				1	
72	Sh.28	Top Plate 1				1	
68	Sh.28	Angle 3-5				1	
67	Sh.28	Angle 3-3				1	
63.1	Sh.20	80K Shield Upper Right Half				1	
63	Sh.19	80K Shield Upper Right Half, Sub-Asm	1			X	
61		Flexible Copper Braid				16	Blackburn FBB12-1" 6" or Equiv
57		Slotted Flat Csk Hd Cap Scr 8-32UNCx1/2 Lg.				8	316 Stn Stl
55		Hex Nut 10-24UNF				12	316 Stn Stl
54		Regular Helical Spring Lock Washer #10				24	316 Stn Stl
53		Hex Soc Hd Cap Scr 10-24UNC x 3/4 Lg.				8	316 Stn Stl Diconited
52		Hex Soc Hd Cap Scr 10-24UNC x 1/2 Lg.				16	316 Stn Stl Diconited
51		Washer Plain Type A 1/4				12	316 Stn Stl
50		Hex Soc Hd Cap Scr 1/4-20UNC x 1.00 Lg.				12	316 Stn Stl Diconited
49		Hex Soc Hd Cap Scr 1/4-20UNC x 7/8 Lg.				12	316 Stn Stl Diconited
48		Hex Nut 1/4-20UNC				38	316 Stn Stl
47		Regular Helical Spring Lock Washer 1/4				40	316 Stn Stl
46		Slotted Flat Csk Hd Cap Scr 1/4-20UNCx3/4 Lg.				4	316 Stn Stl Diconited
45		Hex Nut 10-32UNF				8	316 Stn Stl
43		Slotted Rd Hd Cap Scr 10-24UNCx3/8 Lg.				8	Alum
42	Sh.17	Half Clamp Ring				8	
33	Sh.15	Short Bracket				2	
32	Sh.15	Long Bracket				2	
31	Sh.15	Clamp Spacer				24	
30	Sh.15	1" Copper Clamp				2	
29	Sh.15	2" Copper Clamp				2	
24	Sh.14	Angle 2-2				1	
23	Sh.14	Angle 1-2				1	
22	Sh.13	Angle 2				1	
21	Sh.13	Angle 1				1	

63 80K SHIELD RIGHT UPPER, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 19
DFT. SCALE: 1:5
MATERIAL: AS NOTED
QTY: 1 REQ'D PER SUB-ASM
NOTES:

PRINT
DISTR.

CR-1

7110-002

REV.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES:
TOLERANCES ON:
.00 ± .010
.000 ± .005
FRACTIONS ± 1/64
ANGLES ± 0.5°
ALL SURFACES

CORNELL UNIVERSITY

LEPP

LABORATORY FOR ELEMENTARY PARTICLE PHYSICS

CORNELL UNIVERSITY

Floyd R. Newman Laboratory

Ithaca, NY 14853

ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD

80K Shield Right Upper, Sub-Asm

CHECKED BY: VM

APPROVED BY: MUL

DRAWN BY: TMK

DRAWN FOR: VGV

DATE: 8/15/2006

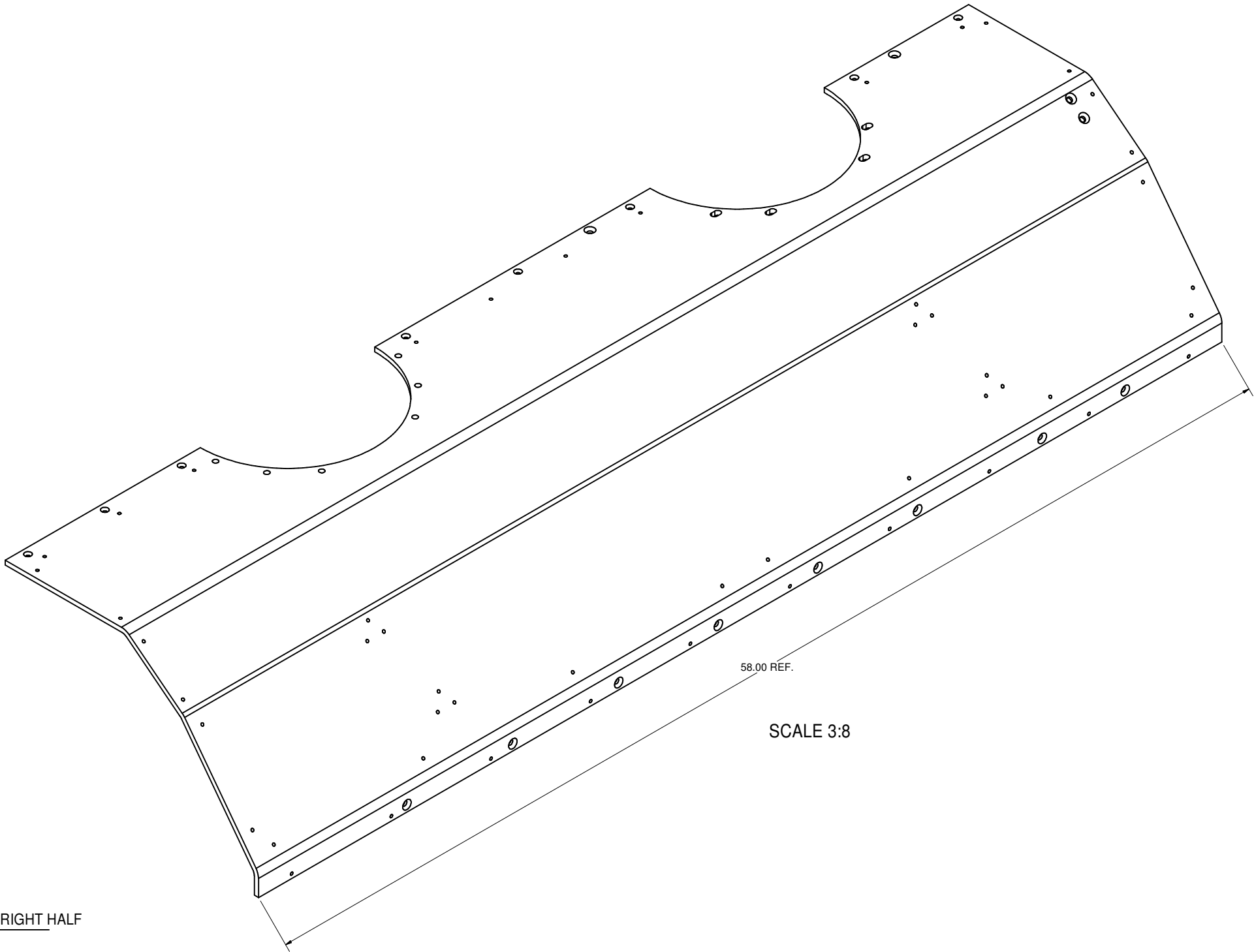
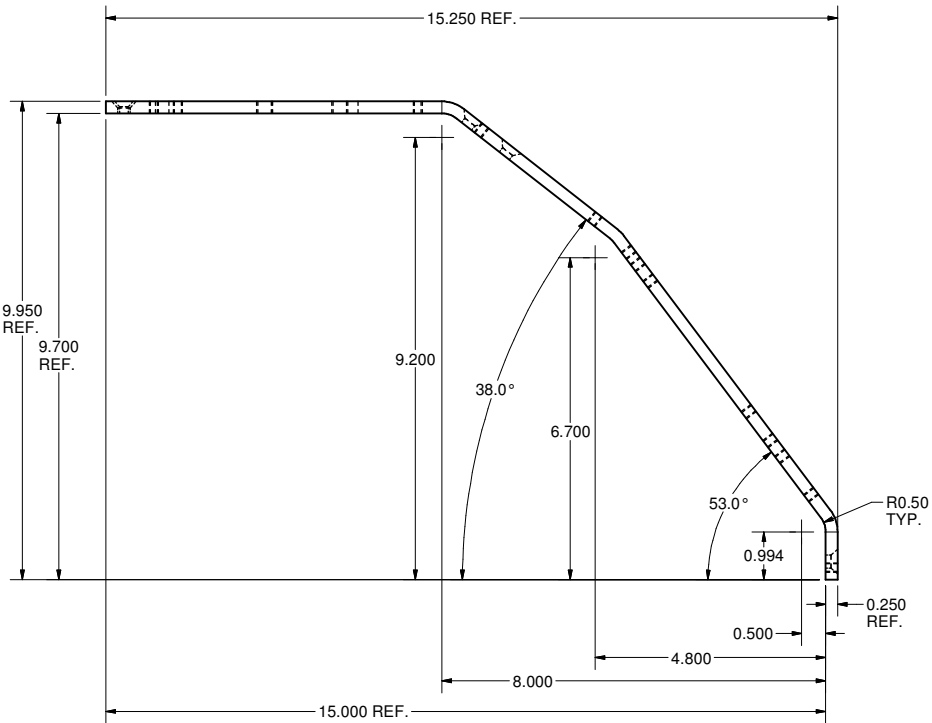
SCALE: D

7110-002






SH. NO. 19 OF 31

REV.

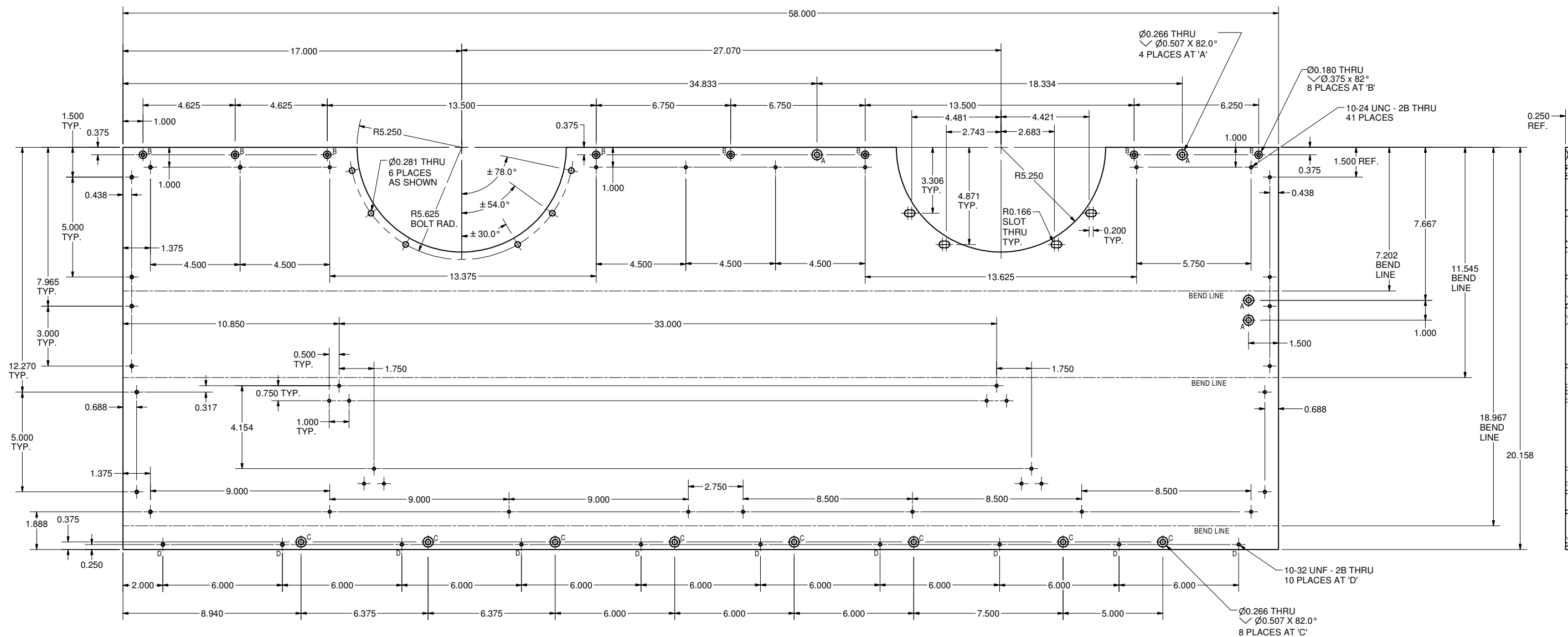
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



63.1 80K SHIELD UPPER RIGHT HALF
FILE NAME: 7110-002
SHEET NO.: 20
DFT. SCALE: 1:2
MATERIAL: AS NOTED (SEE NEXT SHEET)
QTY: 1 PER SUB-ASM
NOTES: 'IN THE FLAT' DETAILS ON NEXT SHEET.





		ITEM		DWG. NO.		DESCRIPTION			G1		G2		G3		REMARKS		REV.											
									QUANTITY																			
		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw																								
7110-002 SH. NO. 20 OF 31		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 			<div><div> </div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div>												ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Upper Right Half									
REV.		CHECKED BY: VM			DRAWN BY TMK			DRAWN FOR VGV			DATE 8/15/2006			SCALE D		7110-002 SH. NO. 20 OF 31			REV.									
		APPROVED BY: MUL																										

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

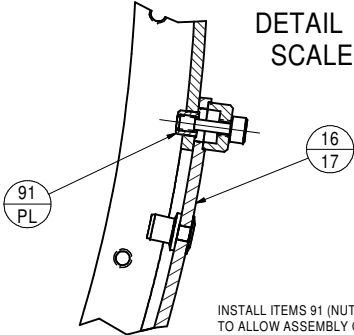
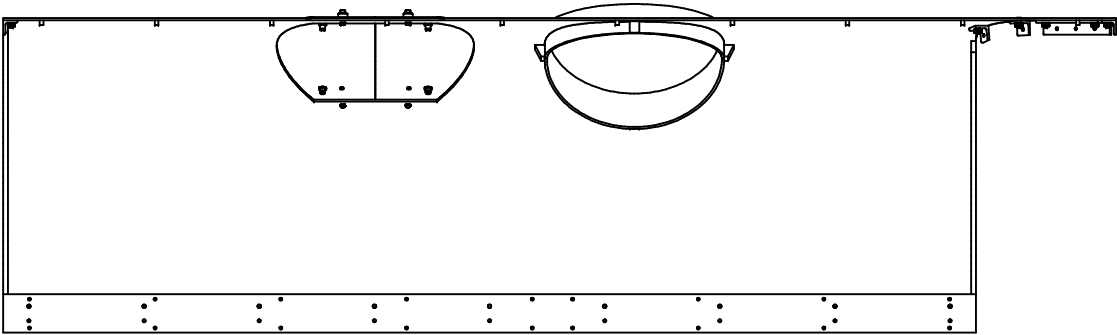


80K SHIELD UPPER RIGHT HALF

FILE NAME: 7110-002
SHEET NO.: 21
DFT. SCALE: 3:8
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES: ALL BENDS ARE DOWN.
SEE PREVIOUS SHEET FOR BEND PROFILE.

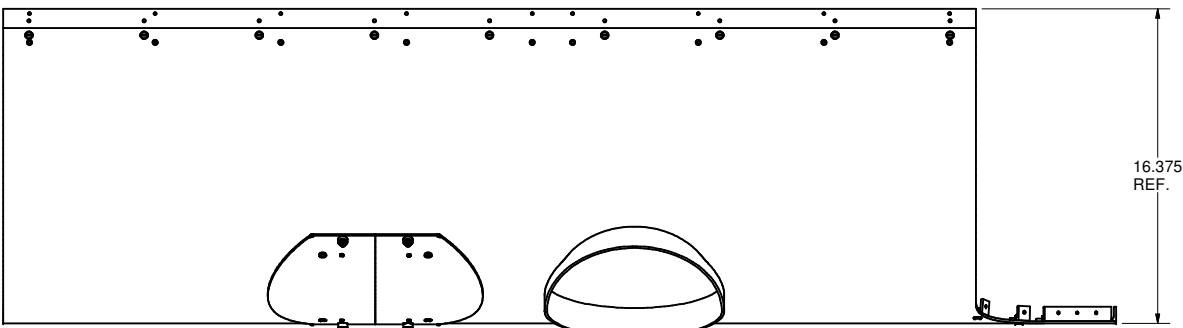
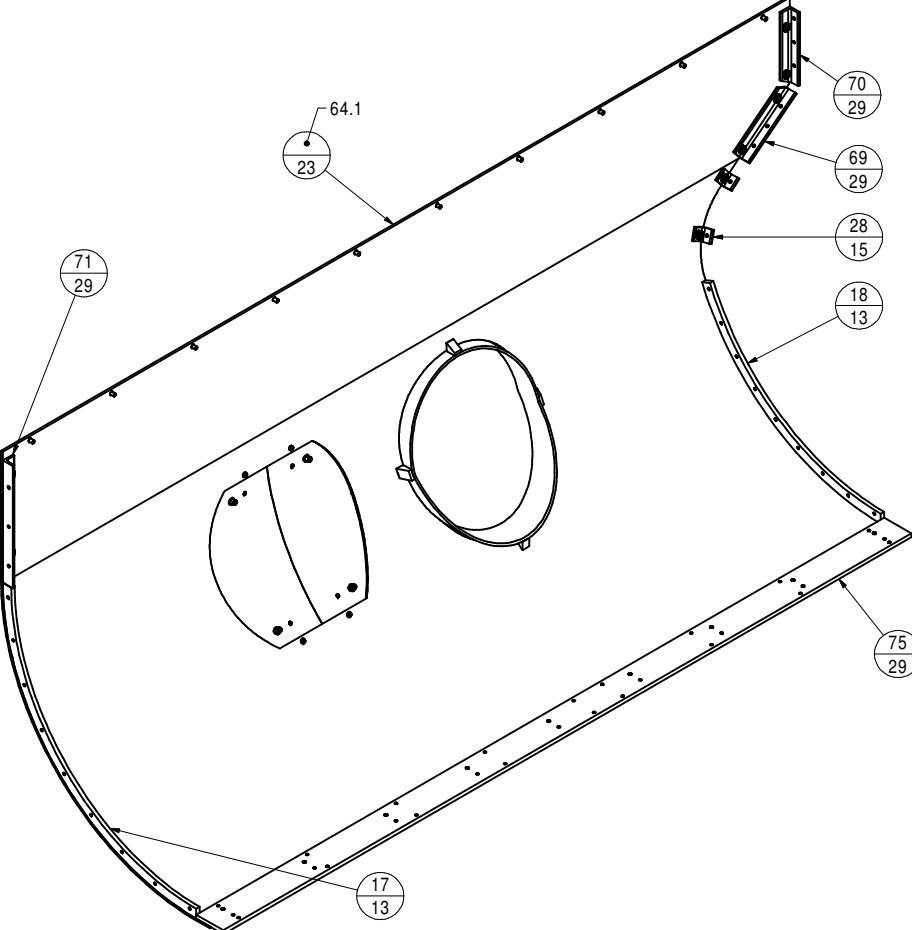
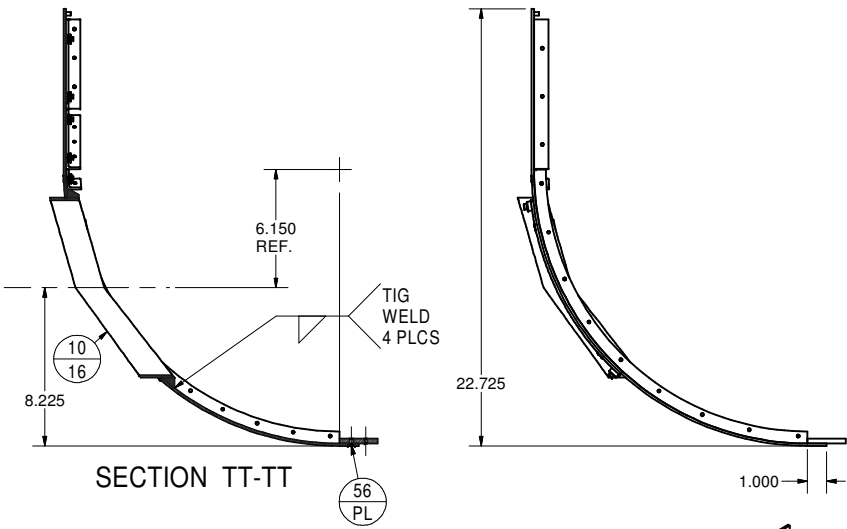
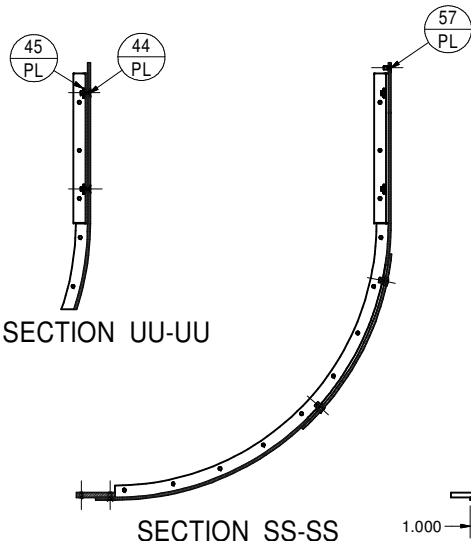
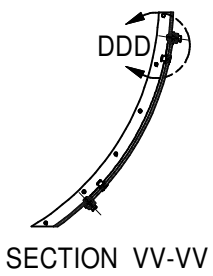
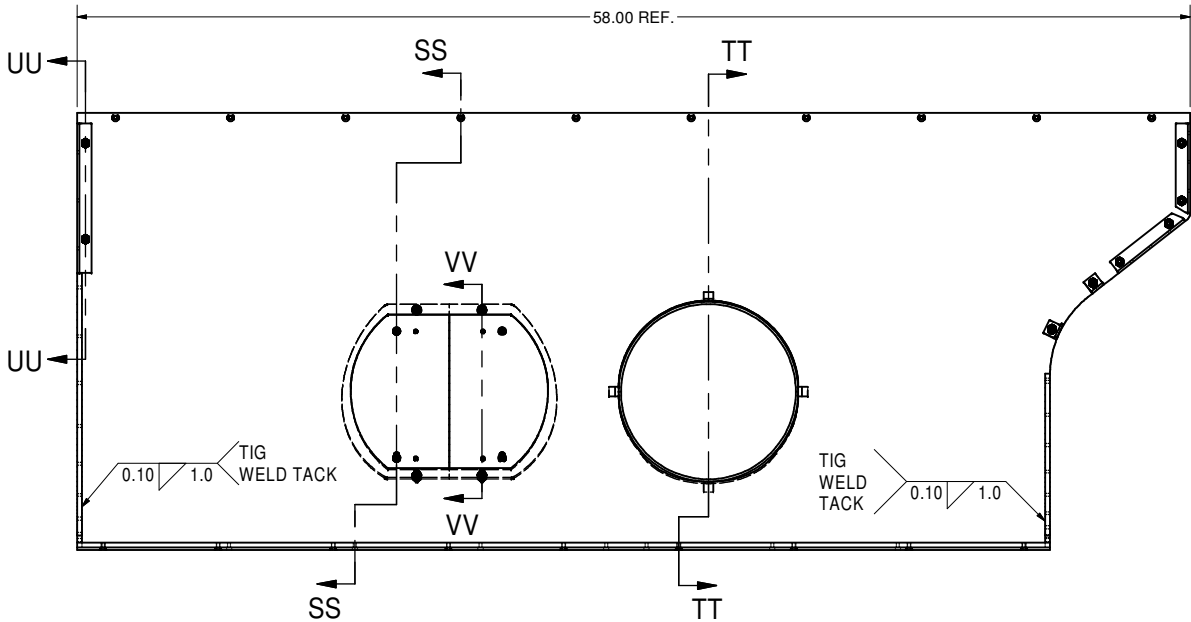
	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
				QUANTITY						
D PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw									
	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ±0.10 .000 ±.005 FRACTIONS ±1/64 ANGLES ±0.5° ALL SURFACES 	<div><div> CORNELL UNIVERSITY LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div><div> LEPP LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Upper Right Half - Flat Pattern</div>							
SH. NO. 21 OF 31	7110-002 OF 31									
REV.	CHECKED BY: VM APPROVED BY: MUL	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE	D	7110-002 SH. NO. 21 OF 31	REV.		

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.






DETAIL DDD
SCALE 1:1

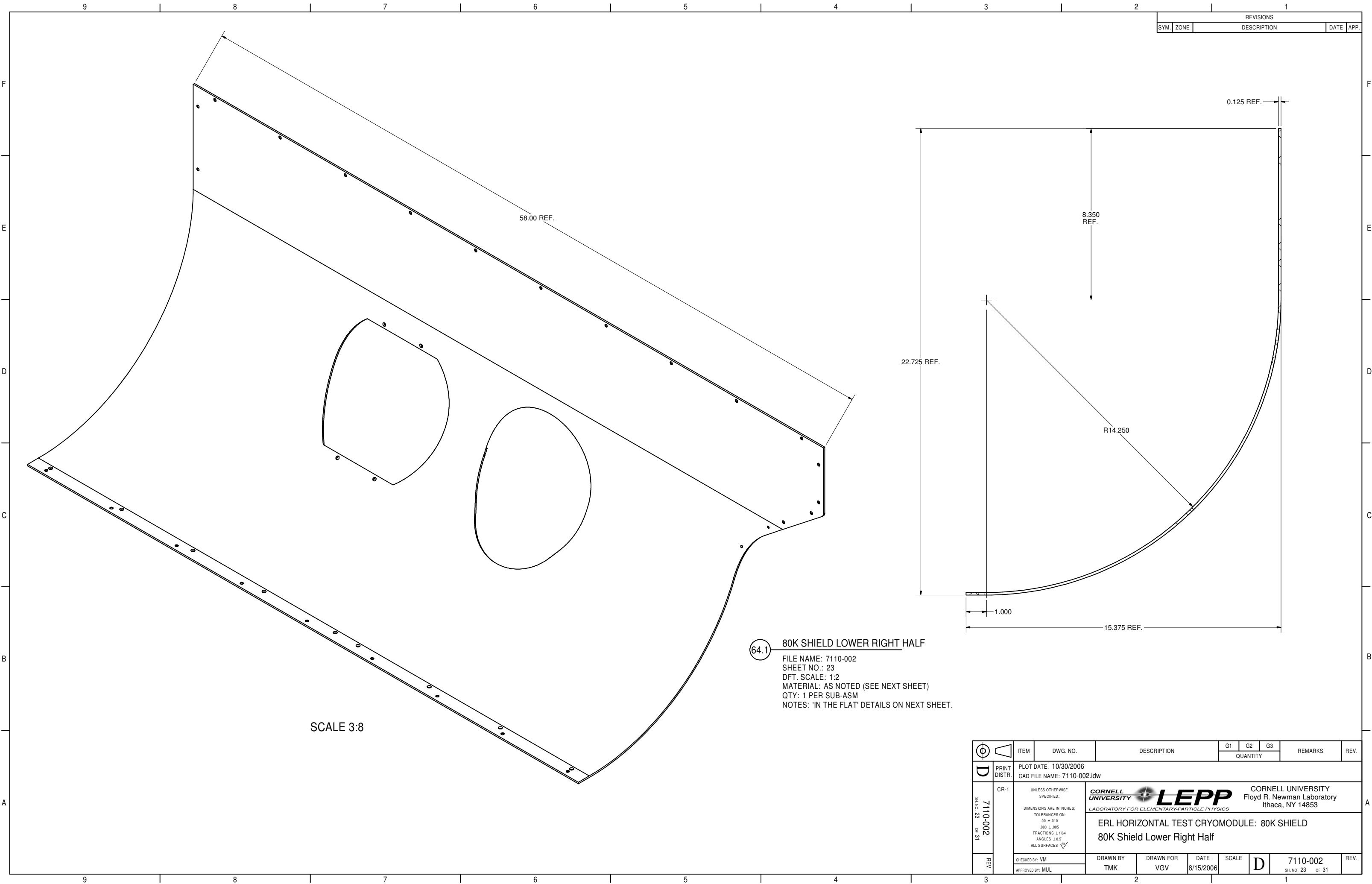
INSTALL ITEMS 91 (NUT INSERTS X 4) TO ITEM 64.1
TO ALLOW ASSEMBLY OF ITEM 16






64 80K SHIELD RIGHT LOWER, SUB-ASM
FILE NAME: 7110-002
SHEET NO.: 22
DFT. SCALE: 3:8
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM
NOTES:

91		Nut Insert 8-32UNC Stn Stl		4		McMC #98005A130 or Equiv.
75	Sh.29	Shield Bottom Plate		1		
71	Sh.29	Angle 11		1		
70	Sh.29	Angle 4		1		
69	Sh.29	Angle 6		1		
64.1	Sh.23	80K Shield Right Lower Half		1		
64	Sh.22	80K Shield Right Lower, Sub-Asm	1	X		
56		Slotted Fl Csk Hd Cap Scr 10-32UNCx3/8Lg.		9		Alum
45		Hex Nut 10-32UNF		8		316 Stn Stl
44		Slotted Flat Csk Hd Cap Scr 10-32UNFx1/2Lg.		8		Alum
28	Sh.15	Angle 7-1		2		
18	Sh.13	Shield Quarter Ring		1		
17	Sh.13	Shield Quarter Ring 2		1		
16	Sh.17	80K Shield Tuner Port Cover		1		
10	Sh.15	80K Shield Coupler Port Tube, Sub-Asm		1		

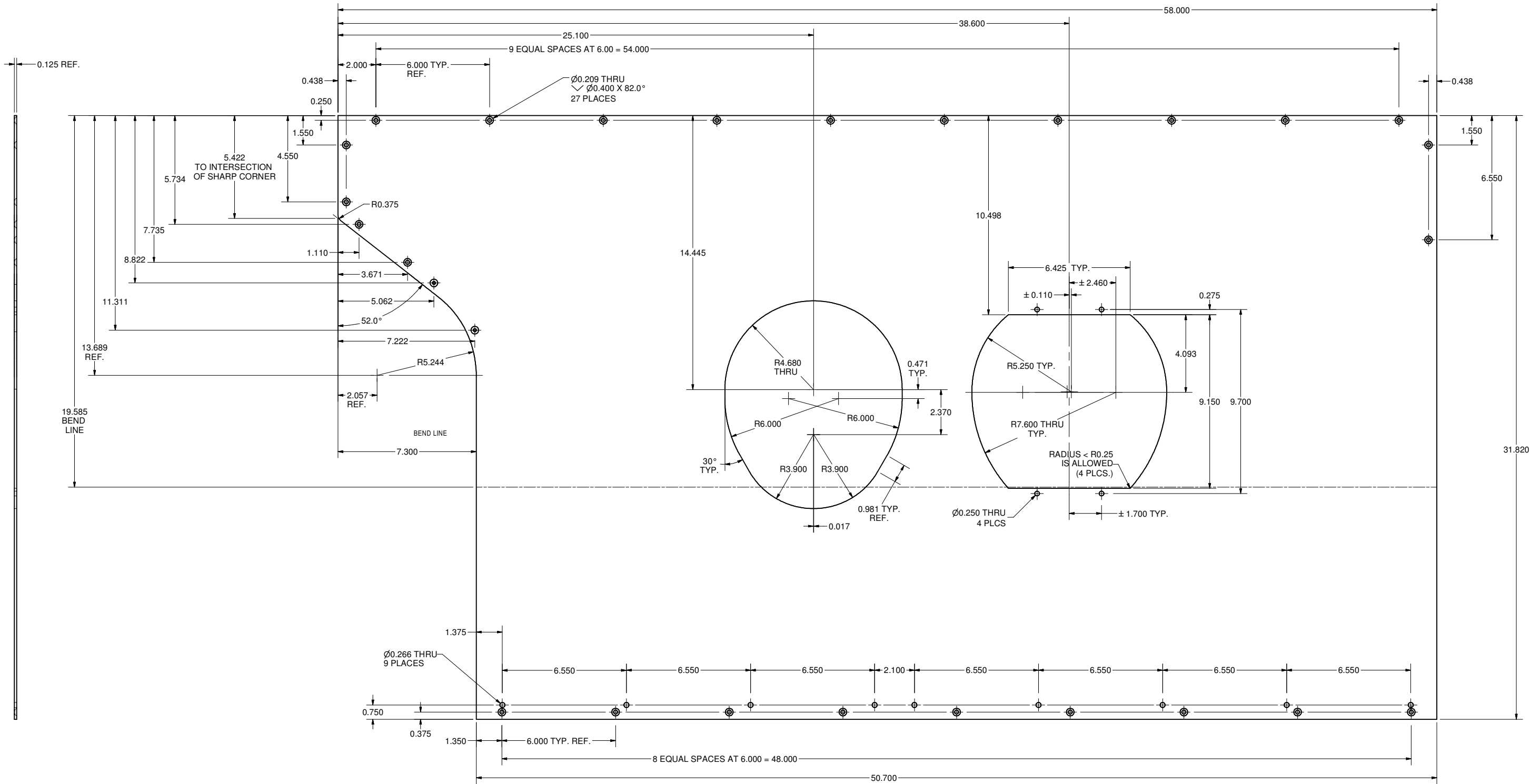
	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
SH. NO. 22 OF 31	7110-002	CR-1	<div><div><div>UNLESS OTHERWISE SPECIFIED:</div><div>DIMENSIONS ARE IN INCHES:</div><div>TOLERANCES ON:</div><div>.00 ± .010</div><div>.000 ± .005</div><div>FRACTIONS ± 1/64</div><div>ANGLES ± 0.5°</div><div>ALL SURFACES </div></div><div><div> LEPP</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div></div>							
		ERL HORIZONTAL TEST CRYMODULE: 80K SHIELD								
		80K Shield Right Lower, Sub-Asm								
REV.		CHECKED BY: VM	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7110-002	REV.	
		APPROVED BY: MUL	TMK	VGW	8/15/2006			SH. NO. 22 OF 31		



REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
				QUANTITY				
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw						
		CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 	<div><div> LEPP</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div>				
				ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD				
				80K Shield Lower Right Half				
SH. NO. 23 OF 31	7110-002							
REV.		CHECKED BY: VM	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002 SH. NO. 23 OF 31	REV.
		APPROVED BY: MUL						

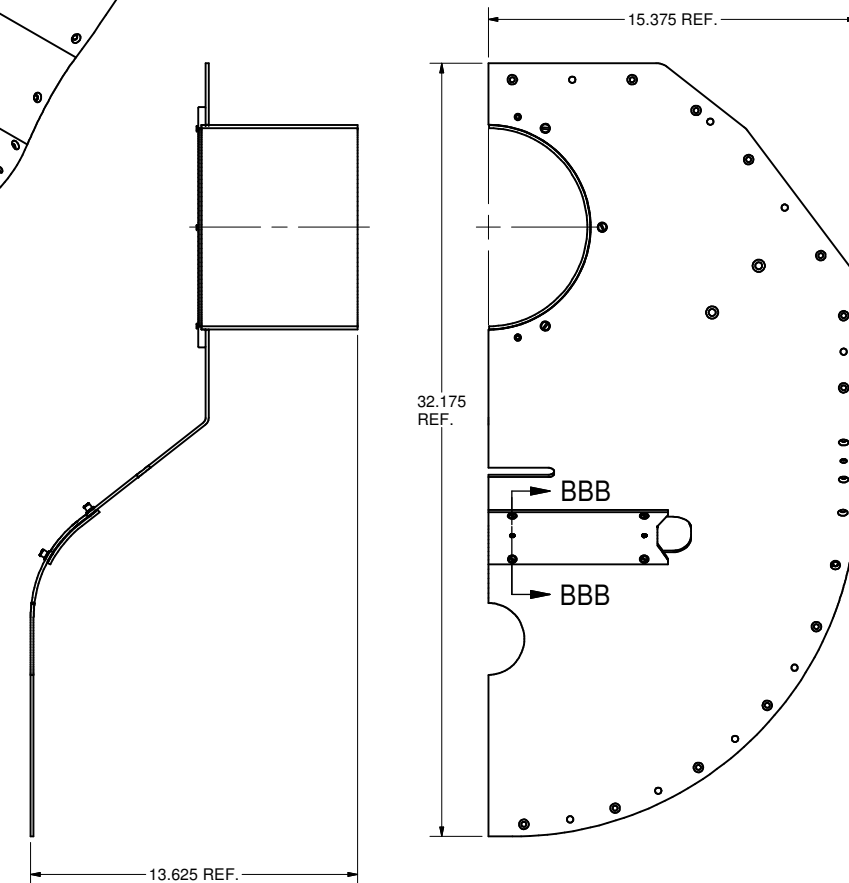
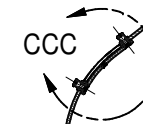
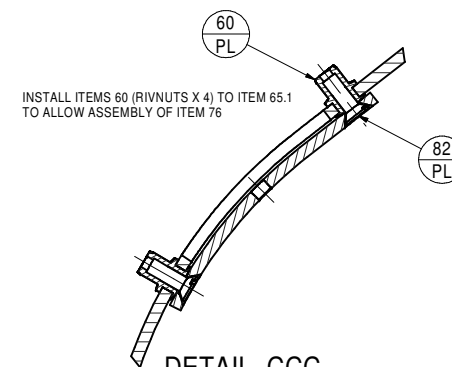
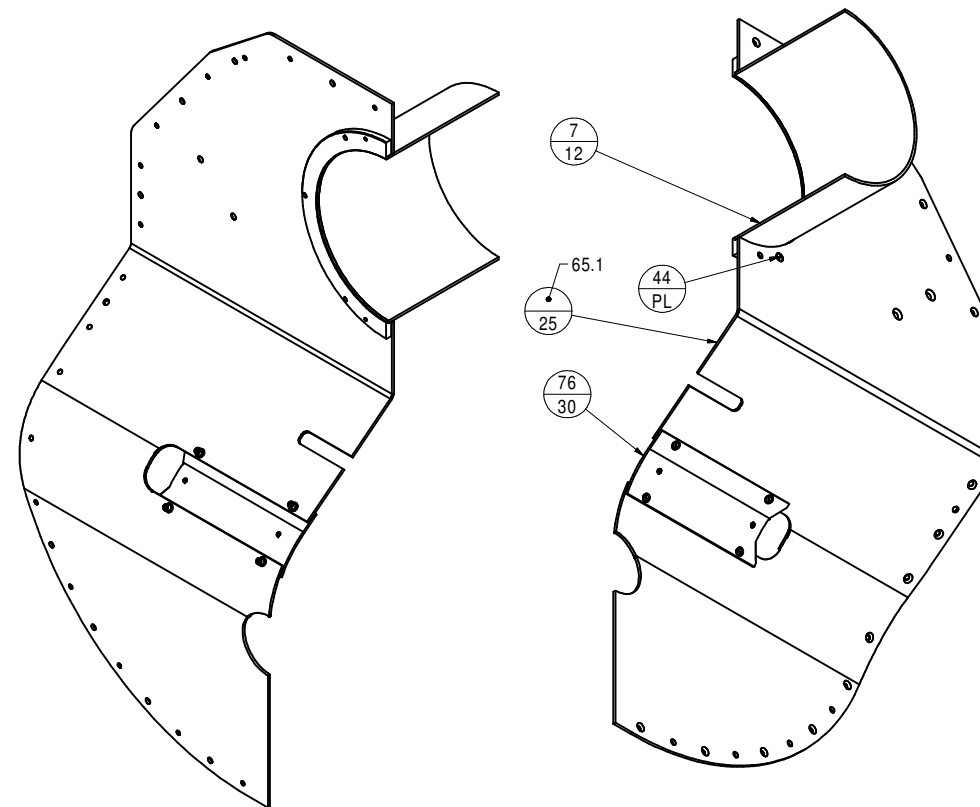
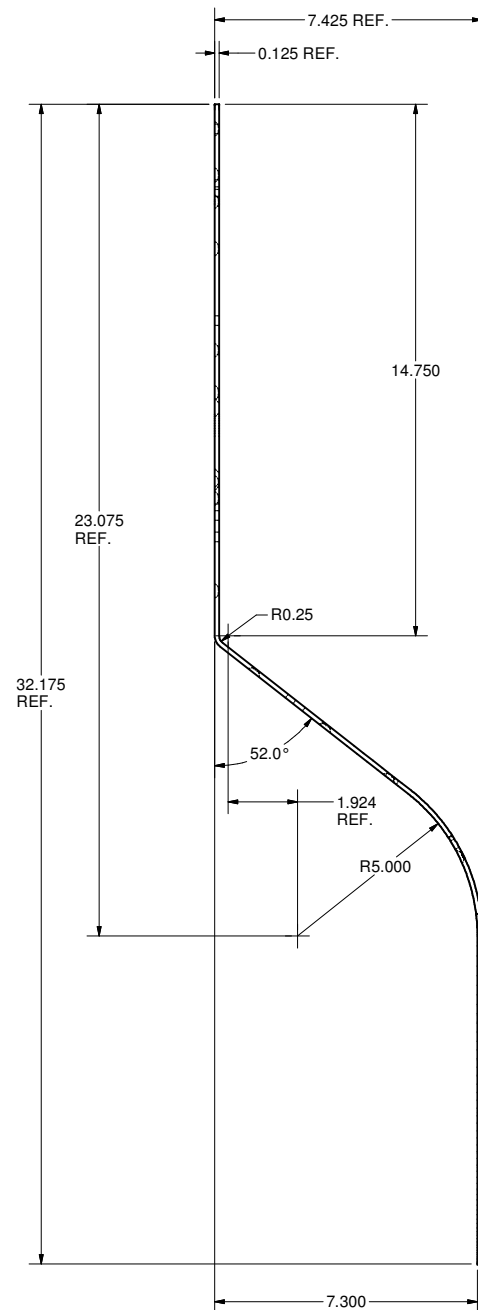
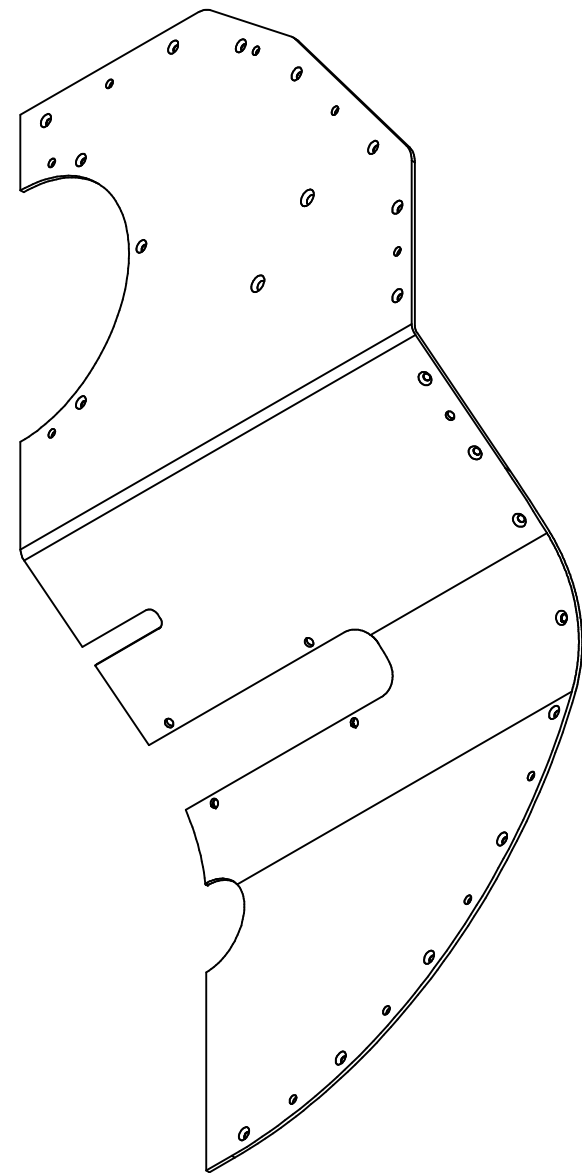
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



64.2 80K SHIELD LOWER RIGHT HALF

FILE NAME: 7110-002
SHEET NO.: 24
DFT. SCALE: 3:8
MATERIAL: 1/8" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES: ALL BENDS ARE DOWN
SEE PREVIOUS SHEET FOR BEND PROFILE

		ITEM		DWG. NO.		DESCRIPTION			G1		G2		G3		REMARKS		REV.						
									QUANTITY														
		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw																			
SH. NO. 24 OF 31		7110-002		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES			 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS			ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Lower Right Half - Flat Pattern											
REV.				CHECKED BY: VM		DRAWN BY TMK		DRAWN FOR VGV		DATE 8/15/2006		SCALE				7110-002		REV.					
				APPROVED BY: MUL												SH. NO. 24 OF 31							









80K SHIELD FRONT RIGHT HALF, SUB-ASM

FILE NAME: 7110-002
SHEET NO.: 25
DFT. SCALE: 1:4
MATERIAL: AS NOTED
QTY: 1 PER SUB-ASM
NOTES:

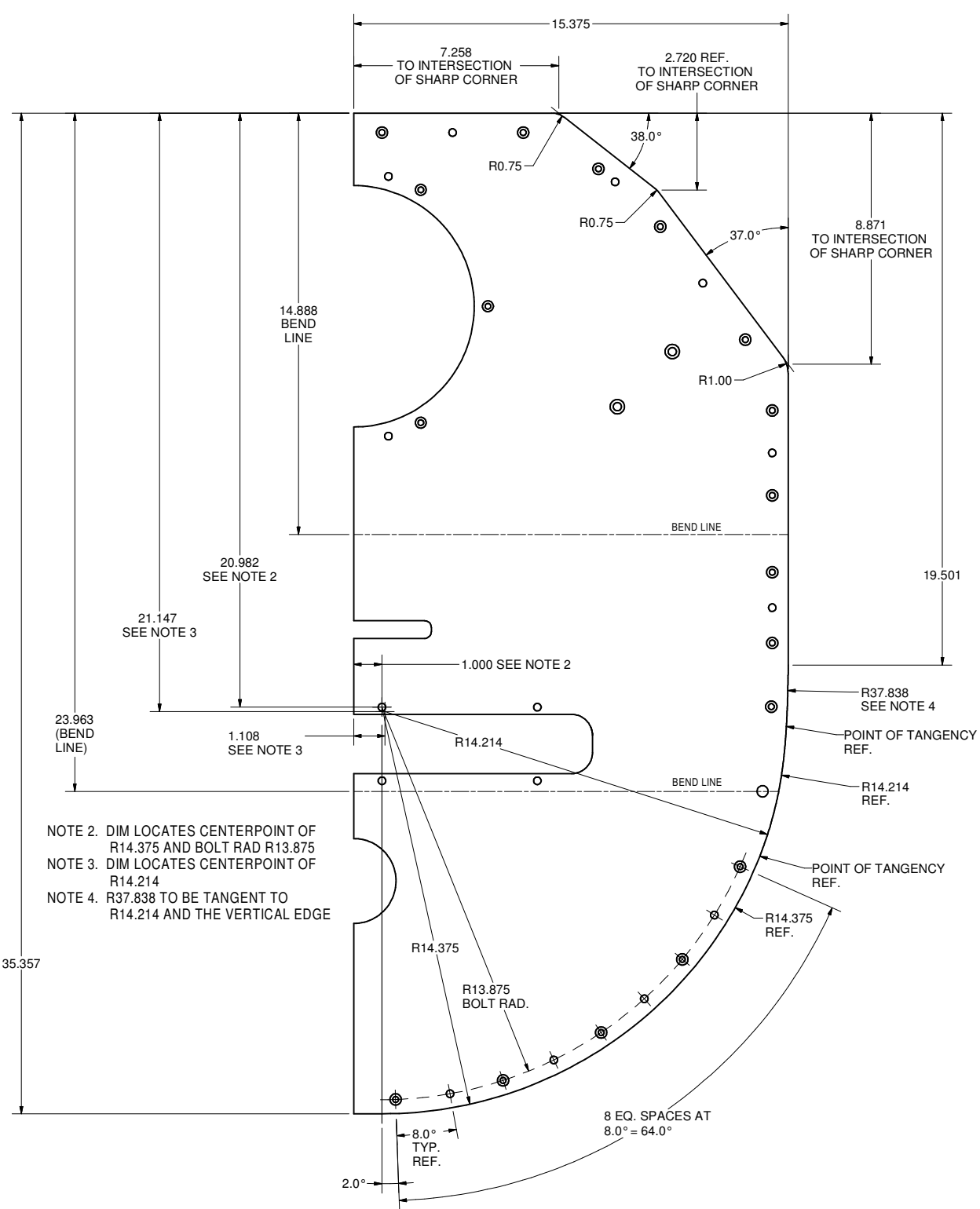
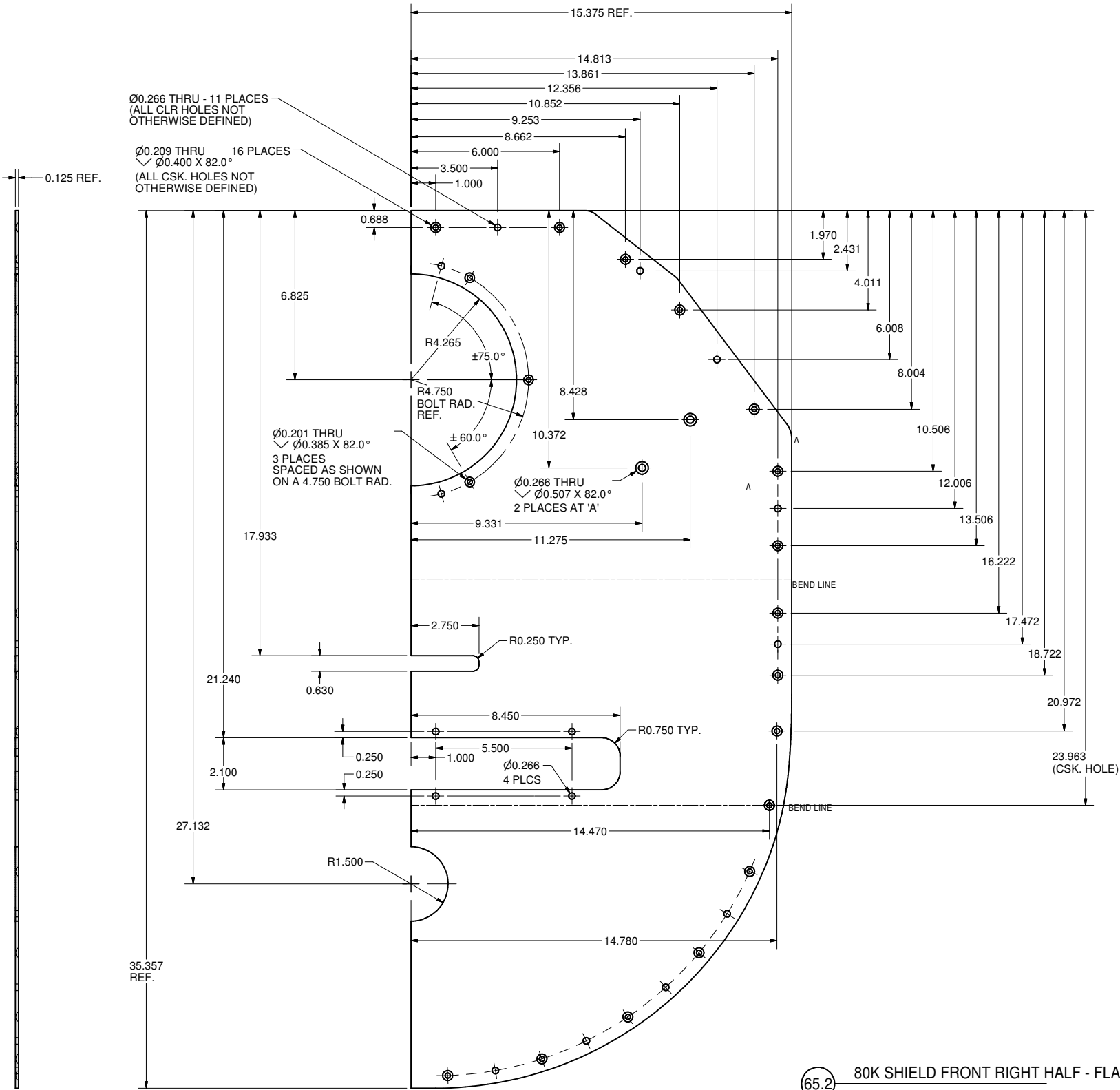
82		Slotted Fl Csk Hd Cap Scr 8-32UNCx1/2Lg.		4	ALUM
76	Sh.30	WPM Front Cover		1	
65.1	Sh.25	80K Shield Front Right Half		1	
65	Sh.25	80K Shield Front Right Half, Sub-Asm	1	X	
60		Rivnut 8-32UNC Alum		4	McMC #94020A323 or Equiv
44		Slotted Flat Csk Hd Cap Scr 10-32UNFx1/2Lg.		3	ALUM
7	Sh.12	80K Shield 8.50" Port, Sub-Asm		1	

80K SHIELD FRONT RIGHT HALF

FILE NAME: 7110-002
SHEET NO.: 25
DFT. SCALE: 1:2
MATERIAL: AS NOTED (SEE NEXT SHEET)
QTY: 1 PER SUB-ASM
NOTES: 'IN THE FLAT' DETAILS ON NEXT SHEET



 	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
	SH. NO. 25 OF 31 7110-002	CR-1 UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 	 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS						ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Front Right Half, Sub-Asm	
CHECKED BY: VM APPROVED BY: MUL			DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE		7110-002 SH. NO. 25 OF 31	REV.	

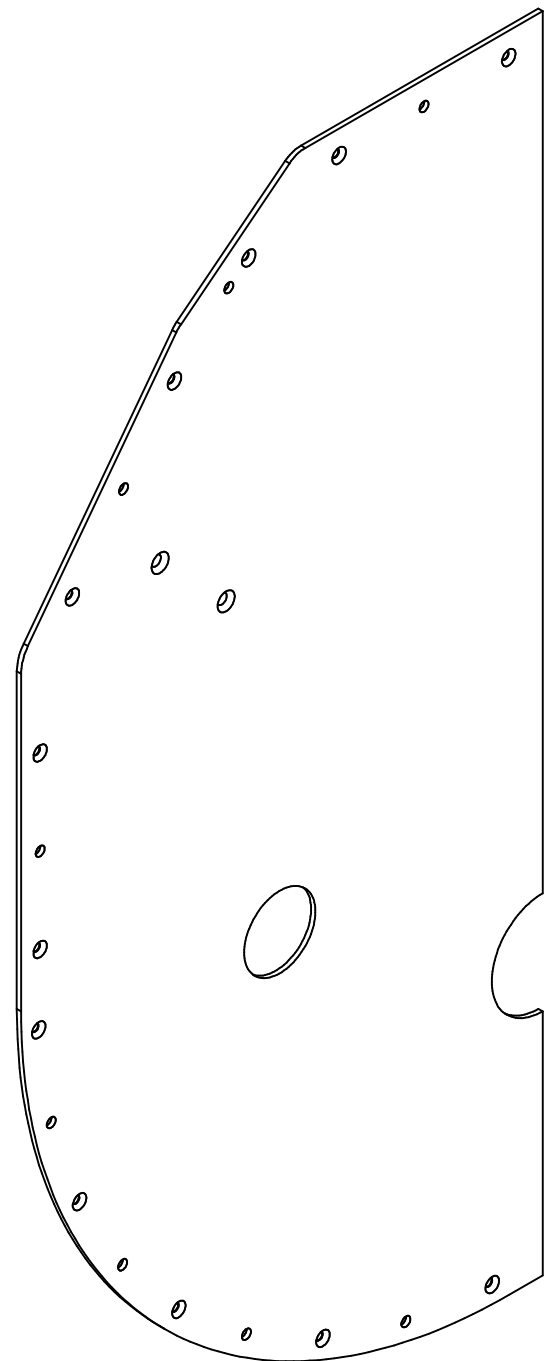
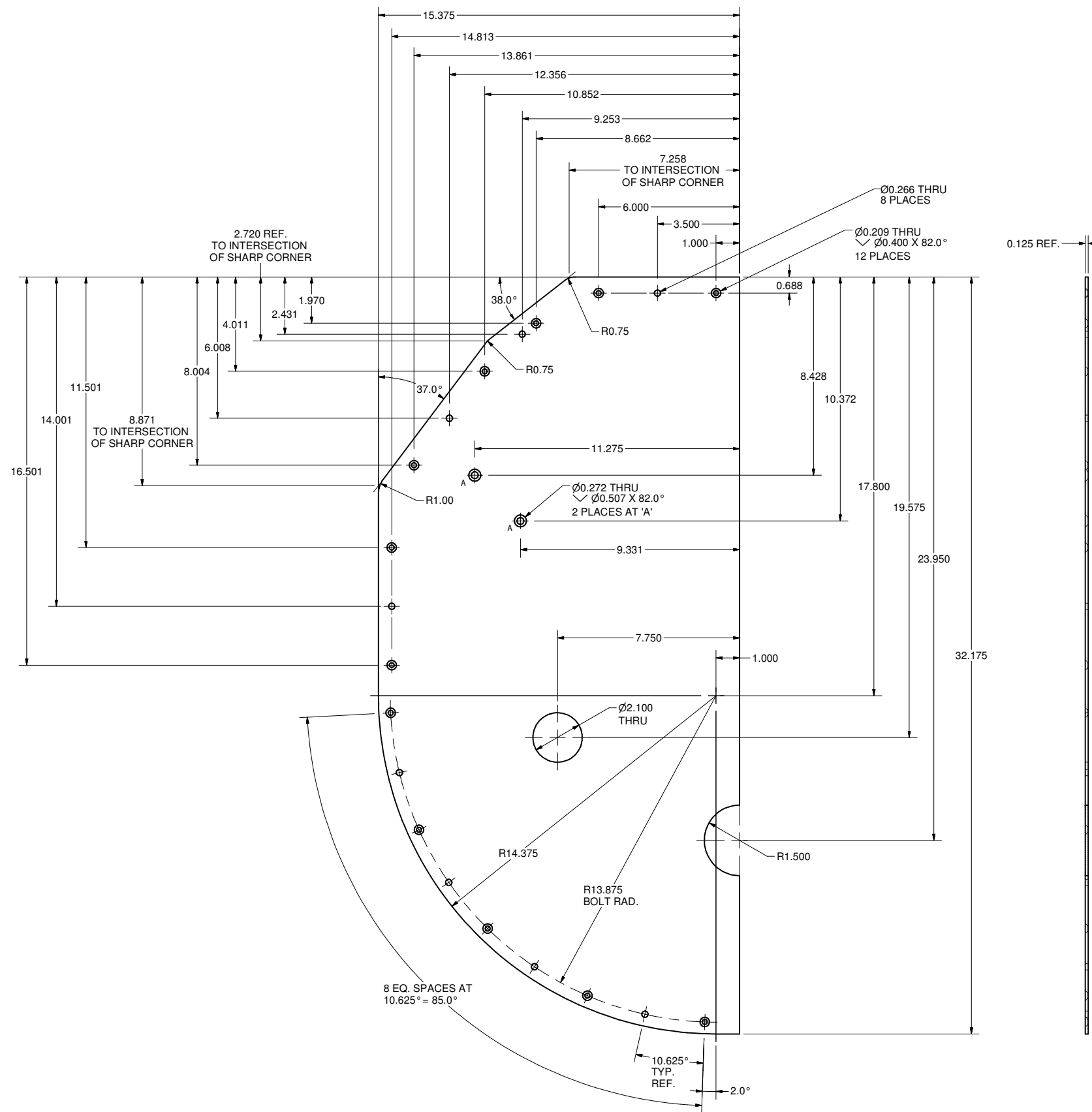
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



65.2 80K SHIELD FRONT RIGHT HALF - FLAT PATTERN

FILE NAME: 7110-002
SHEET NO.: 26
DFT. SCALE: 3:8
MATERIAL: 1/8" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES: 1. TWO 'FRONT' VIEWS WERE USED TO
DIMENSION DIFFERENT FEATURES OF THE
SAME PART.
SEE PREVIOUS SHEET FOR BEND PROFILE








	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
				QUANTITY				
PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw							
SH. NO. 26 OF 31	7110-002	CR-1	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853					
			UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 					
			ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Front Right Half - Flat Pattern					
REV.	CHECKED BY: VM		DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE D	7110-002	REV.
	APPROVED BY: MUL							
SH. NO. 26 OF 31								



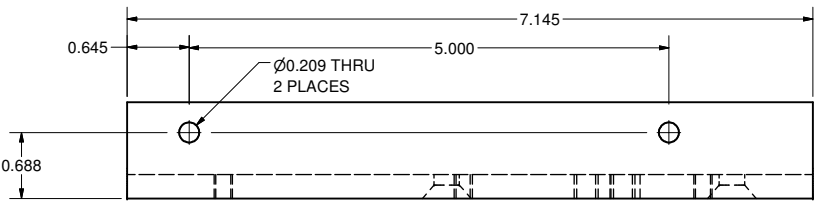
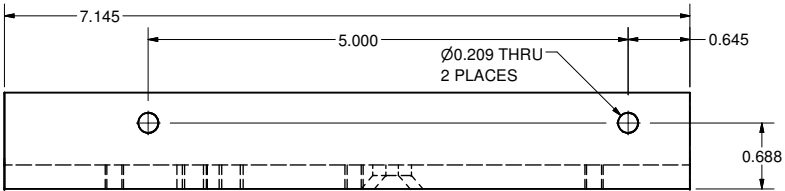
SCALE 1:2

66 **80K SHIELD BACK RIGHT HALF**

FILE NAME: 7110-002
SHEET NO.: 27
DFT. SCALE: 3:8
MATERIAL: 1/8" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES: THIS ITEM NOT BENT AFTER MACHINING

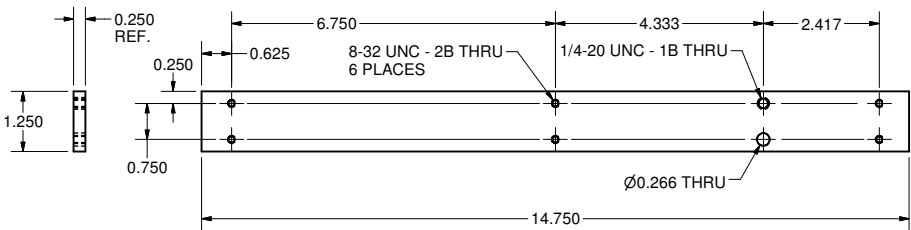
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
		QUANTITY									
	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw									
	CR-1 UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 	<div><div><p>CORNELL UNIVERSITY</p><p>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</p></div><div><p>LEPP</p></div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div>									
		ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD 80K Shield Back Right Half, Detail									
REV.	CHECKED BY: VM APPROVED BY: MUL	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE		7110-002 SH. NO. 27 OF 31			REV.	

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

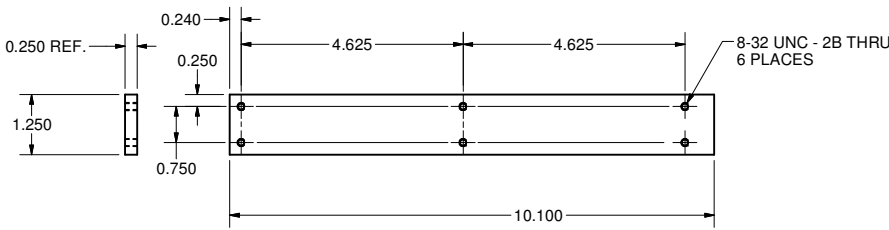


67 ANGLE 3-3
FILE NAME: 7110-002
SHEET NO.: 28
DFT. SCALE: 1:1
MATERIAL: 1/4" OFHC COPPER SHEET
QTY: 1 PER SUB-ASM
NOTES: DEVELOPED LENGTH = 6.437

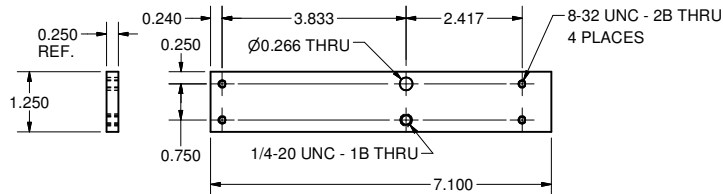
68 ANGLE 3-5
FILE NAME: 7110-002
SHEET NO.: 28
DFT. SCALE: 1:1
MATERIAL: 1/4" OFHC COPPER SHEET
QTY: 1 PER SUB-ASM
NOTES: DEVELOPED LENGTH = 6.437"






72 TOP PLATE 1
FILE NAME: 7110-002
SHEET NO.: 28
DFT. SCALE: 1:2
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES:

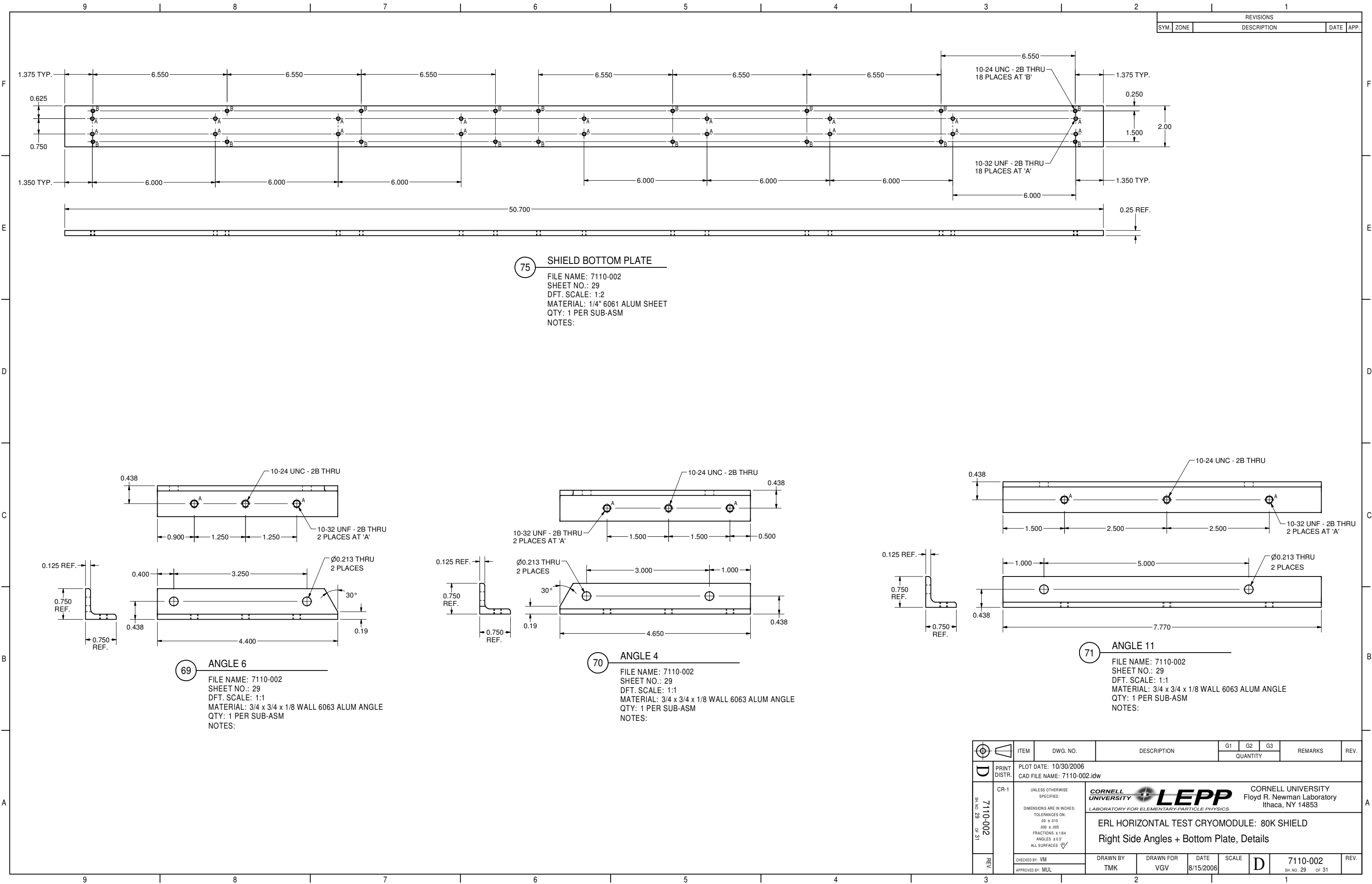


73 TOP PLATE 2
FILE NAME: 7110-002
SHEET NO.: 28
DFT. SCALE: 1:2
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES:

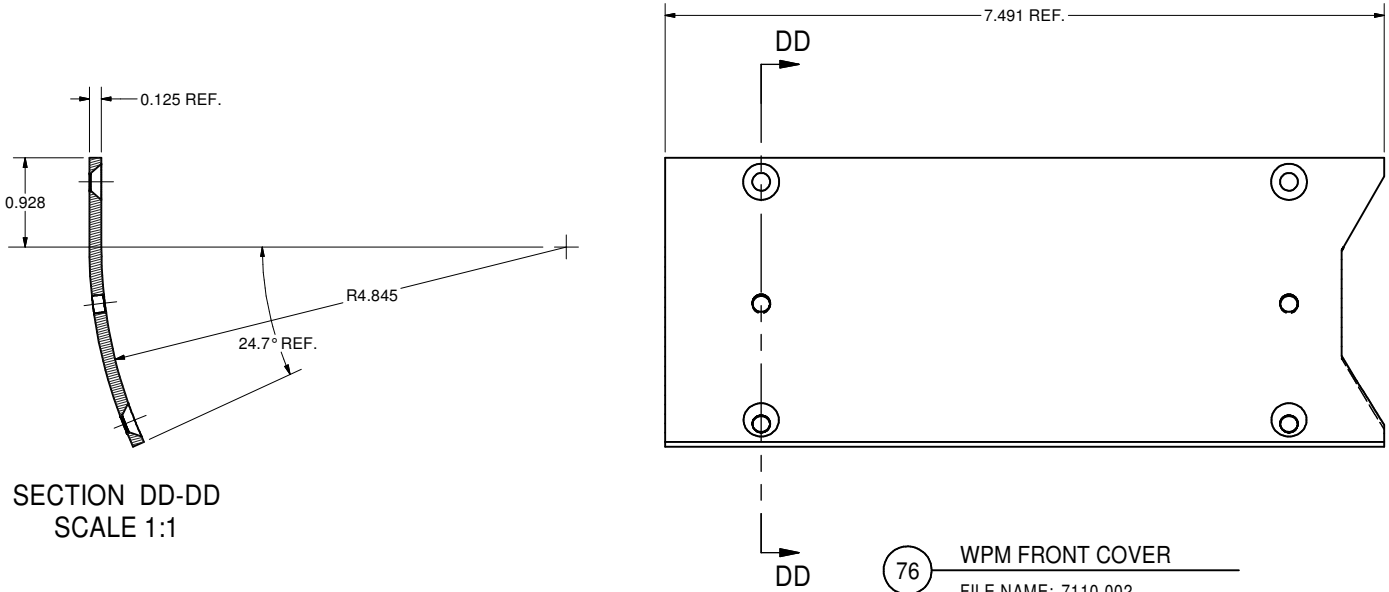


74 TOP PLATE 3
FILE NAME: 7110-002
SHEET NO.: 28
DFT. SCALE: 1:2
MATERIAL: 1/4" 1100-H14 ALUM SHEET
QTY: 1 PER SUB-ASM
NOTES:

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
SH. NO. 28 OF 31	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		<div>CORNELL UNIVERSITY  LEPP</div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div>			CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853			
		ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD Top Plates + Angles, Details								
		REV.	CHECKED BY: VM APPROVED BY: MUL	DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE	D	7110-002 SH. NO. 28 OF 31	REV.

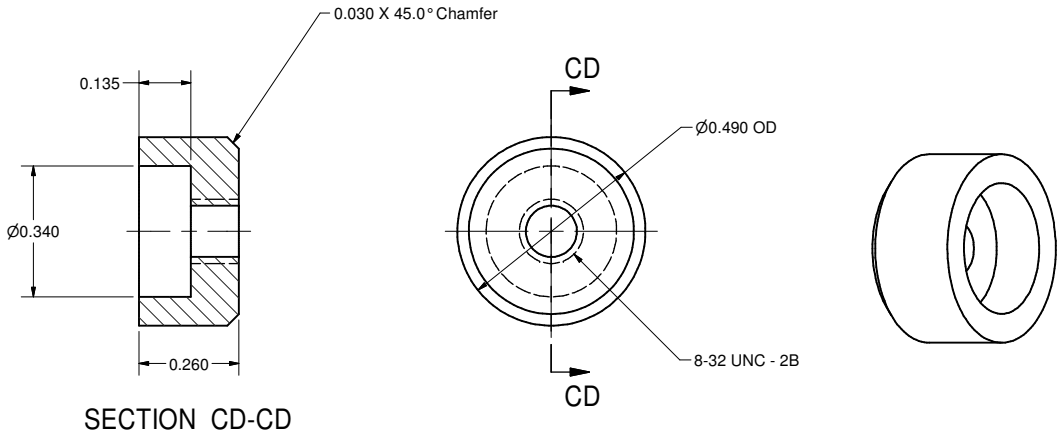


REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



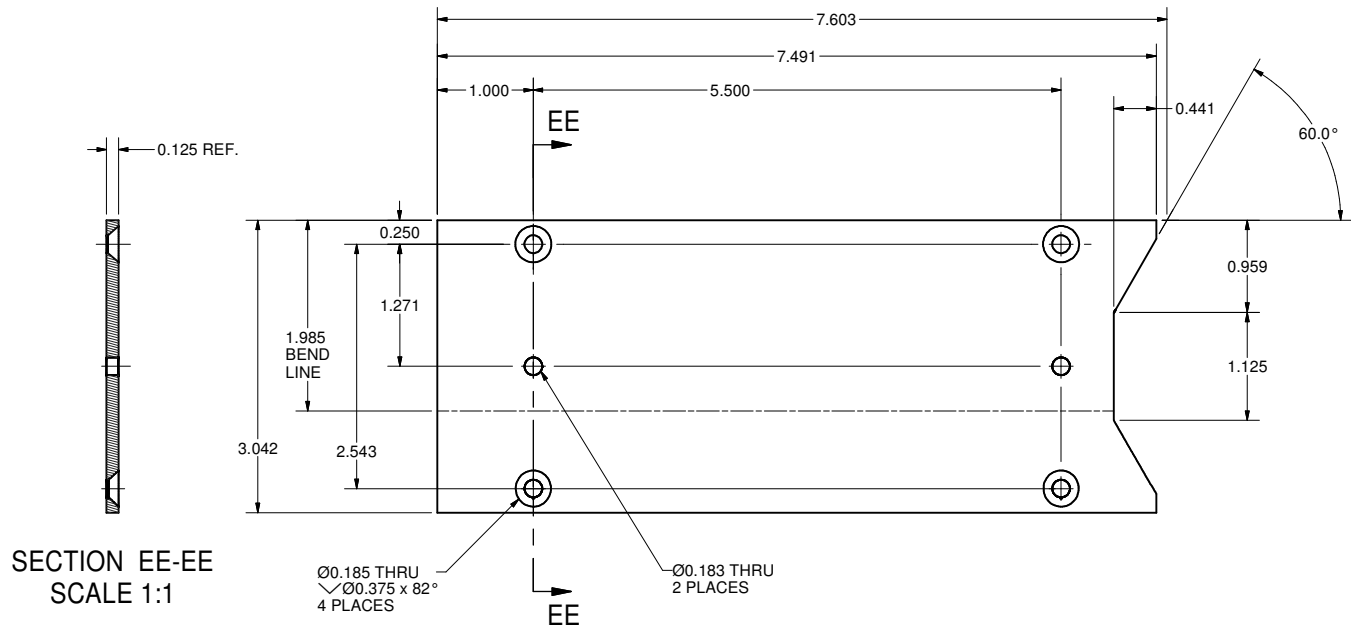
SECTION DD-DD
SCALE 1:1

76 WPM FRONT COVER
FILE NAME: 7110-002
SHEET NO.: 30
DFT. SCALE: 1:1
MATERIAL: AS NOTED ON FLAT PATTERN (ITEM 76.1)
QTY: 1 PER SUB-ASM
NOTES:







SECTION CD-CD

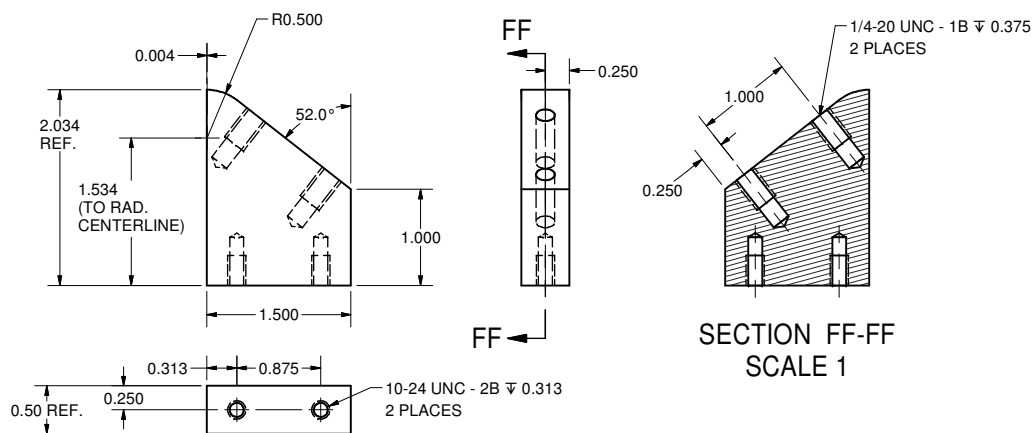
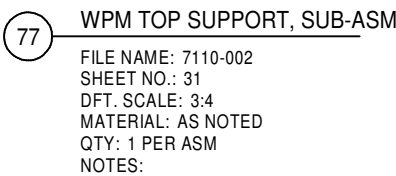
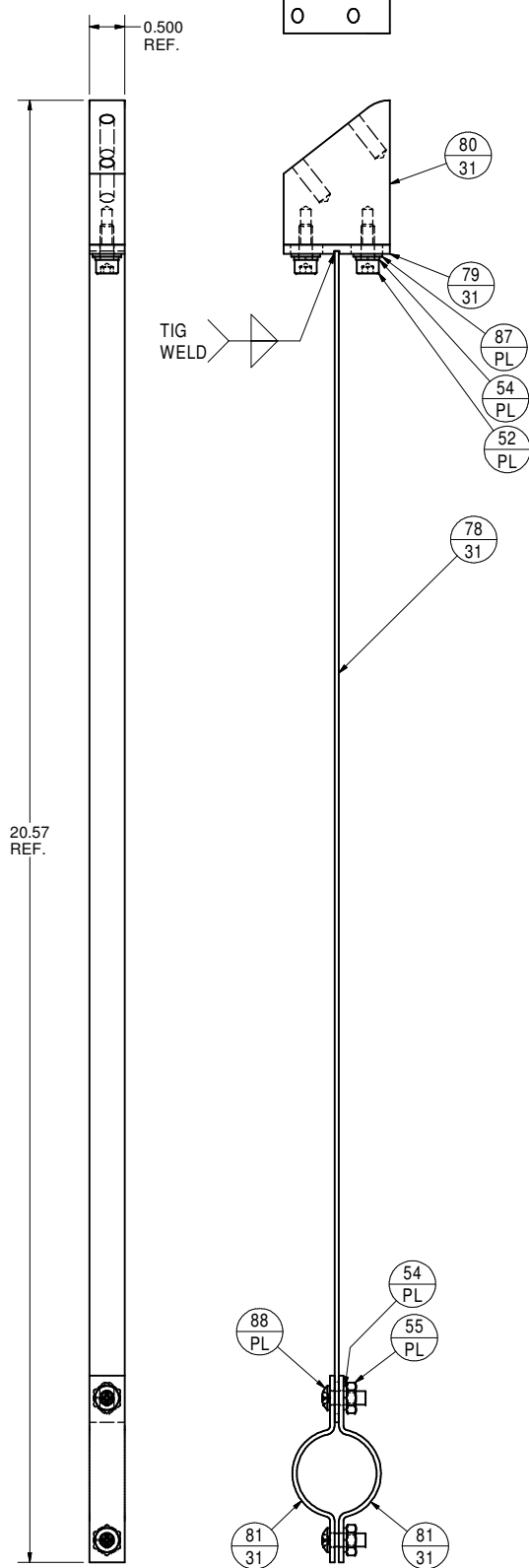
92 TUNER COVER BOSS
FILE NAME: 7110-002
SHEET NO.: 30
DFT. SCALE: 4:1
MATERIAL: 6063 ALUMINUM
QTY: 2 PER SUB-ASM (8 TOTAL)
NOTES:



SECTION EE-EE
SCALE 1:1

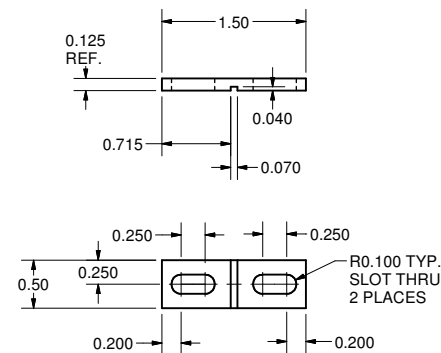
76.1 WPM FRONT COVER - FLAT PATTERN
FILE NAME: 7110-002
SHEET NO.: 30
DFT. SCALE: 1:1
MATERIAL: .125" THK ALUM 1100-H14 SHEET
QTY: 1 PER SUB-ASM
NOTES:

		ITEM		DWG. NO.		DESCRIPTION			G1		G2		G3		REMARKS		REV.		
									QUANTITY										
		PRINT DISTR.		PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw															
7110-002 SH. NO. 30 OF 31		CR-1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 			 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853												
				ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD WPM Front Cover, Details															
REV.		CHECKED BY: VM		DRAWN BY TMK			DRAWN FOR VGV			DATE 8/15/2006			SCALE D		7110-002 SH. NO. 30 OF 31			REV.	
		APPROVED BY: MUL																	

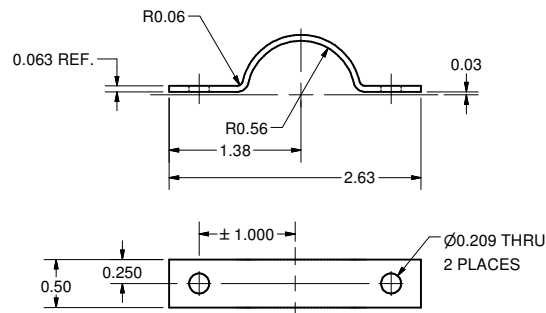


80 WPM SUPPORT 1

FILE NAME: 7110-002
 SHEET NO.: 31
 DFT. SCALE: 1:1
 MATERIAL: 1/2" 316 STN STL SHEET
 QTY: 1 PER SUB-ASM
 NOTES:

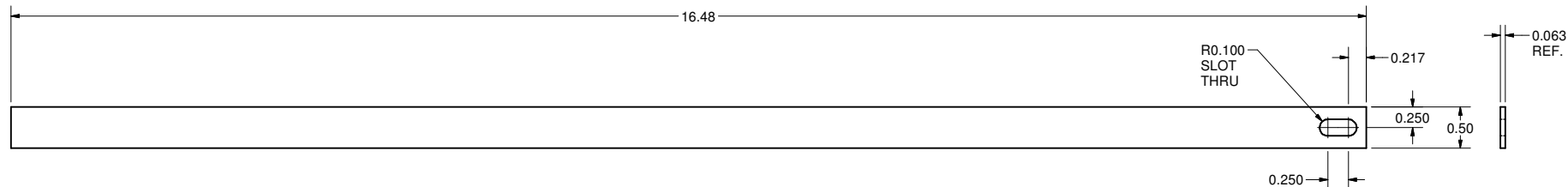


79 WPM TOP SUPPORT BASE
 FILE NAME: 7110-002
 SHEET NO.: 31
 DFT. SCALE: 1:1
 MATERIAL: 1/8" 316 STN STL SHEET
 QTY: 1 PER SUB-ASM
 NOTES:



81 **WPM HALF RING CLAMP**




FILE NAME: 7110-002
 SHEET NO.: 31
 DFT. SCALE: 1:1
 MATERIAL: 1/16" 316 STN STL SHEET
 QTY: 2 PER SUB-ASM
 NOTES: DEVELOPED LENGTH = 3.110"



78 WPM TOP SUPPORT PLATE 1

FILE NAME: 7110-002
 SHEET NO.: 31
 DFT. SCALE: 1:1
 MATERIAL: 1/16" 316 STN STL SHEET
 QTY: 1 PER SUB-ASM
 NOTES:

88		Cross Recessed Filister Hd Scr 10-24UNCx1/2	2	316 Stn Stl Diconited
87		Washer Type B #10 Stn Stl	2	316 Stn Stl
81	Sh.31	WPM Half Ring Clamp	2	
80	Sh.31	WPM Support 1	1	
79	Sh.31	WPM Top Support Base	1	
78	Sh.31	WPM Top Support Plate 1	1	
77	Sh.31	WPM Top Support, Sub-Asm	1	X
55		Hex Nut 10-24UNC	2	316 Stn Stl
54		Regular Helical Spring Lock Washer #10	4	316 Stn Stl
52		Hex Soc Hd Cap Scr 10-24UNCx1/2Lg.	2	316 Stn Stl Diconited

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV
				QUANTITY						
D	PRINT DISTR.	PLOT DATE: 10/30/2006 CAD FILE NAME: 7110-002.idw								
7110-002 <small>SH NO. 31 OF 31</small>	CR-1 UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± 0.10 .000 ± 0.05 FRACTIONS ± 1/64 ANGLES ± .5° ALL SURFACES 	 LEPP LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS			CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853					
		ERL HORIZONTAL TEST CRYOMODULE: 80K SHIELD WPM Top Support, Details + Sub-Asm								
REV.	CHECKED BY: VM		DRAWN BY TMK	DRAWN FOR VGV	DATE 8/15/2006	SCALE	D	7110-002 <small>SH. NO. 31 OF 31</small>	REV	
	APPROVED BY: MUL									