



CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

DRWG NO. REV GID  
**E1000737-v1**

SHEET 1 OF 1

ASSEMBLY NO:

D1003238-V1

# OVERALL BILL OF MATERIALS

TITLE: BOM-ITM ELLIPTICAL BAFFLE LEFT PARTS & QUANTITIES

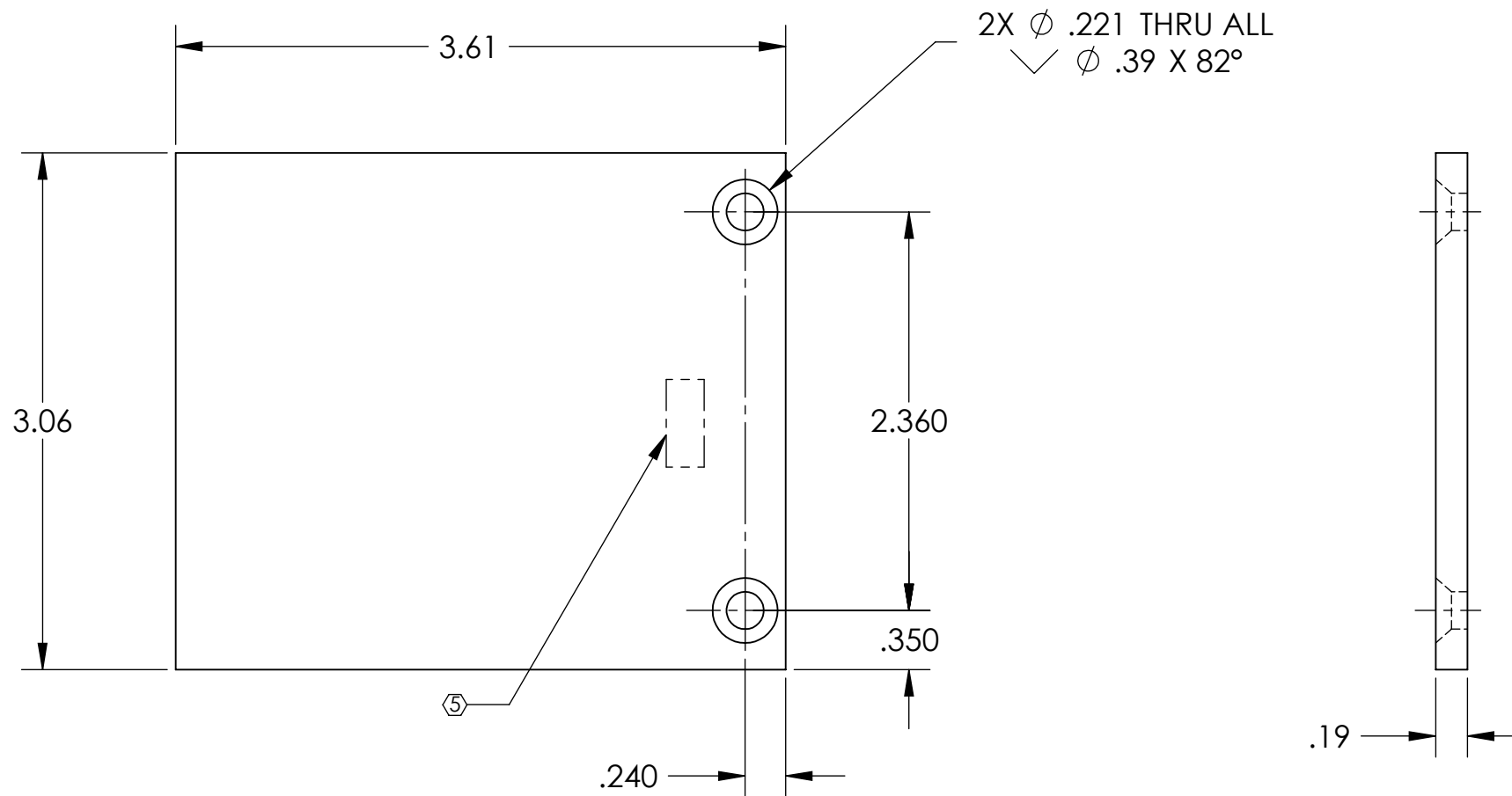
	APPROVALS:	DATE:	REV	DCN NO.	BY	CHECK	DCC	DATE
DRAWN / AUTHOR: (REFERENCE CONTENTS)	CIT, CC	24-Nov-10	v1	E1000736	MRUIZ			
CHECKED:								
APPROVED:								
DCC RELEASE								

ITEM NO	REQ.	SPARE	TOT.	PART NUMBER	REVISION	DESCRIPTION	MATERIAL
1	1	0	1	D1001044	V1	ITM ELLIPTICAL DOWN TUBE	6061-T6
2	1	0	1	D1002753	V1	ITM ELLIPTICAL BLADE	MARAGING SSSL C250
3	1	0	1	D1002764	V1	ITM ELLIPTICAL BAFFLE SKIN	A424 TYPE I, 18GA SSSL
4	1	0	1	D1002765	V1	ITM ELLIPTICAL UPPER CAP SKIN	A424 TYPE I, 18GA SSSL
5	1	0	1	D1002766	V1	ITM ELLIPTICAL LOWER CAP SKIN	A424 TYPE I, 18GA SSSL
6	1	0	1	D1002816	V1	ITM ELLIPTICAL BAFFLE TUBE MOUNT	6061-T6
7	2	0	2	D1002928	V1	ITM ELLIPTICAL BAFFLE HATSECTION	A424 TYPE I, 18GA SSSL
8	1	0	1	D1003122	V1	ITM ELLIPTICAL BAFFLE SUPPORT	6061-T6
9	1	0	1	D1002618	V1	SLC TUBE LOWER CONNECTOR PLATE	6061-T6
10	1	0	1	D1000930	V1	SLC MAGNET HOLDER STEEL PLATE	430F OR 430FR
11	1	0	1	D1002560	V1	SLC DAMPING TUBE TOP PLATE	6061-T6
12	1	0	1	D1002561	V1	SLC DAMPING 8" DIA TUBE	6061-T6
13	1	0	1	D1002617	V1	SLC DAMPING TUBE LOWER PLATE	6061-T6
14	1	0	1	D1000929	V1	SLC COPPER SUPPORT PLATE	6061-T6
15	1	0	1	D1000909	V1	SLC COPPER PLATE	COPPER
16	2	0	2	D1001120	V1	SLC EARTHQUAKE STOP RING	6061-T6
17	1	0	1	D1002609	V1	SLC BLADE MOUNTING BRACKET	6061-T6
18	1	0	1	D1002756	V1	ITM ELLIPTICAL INTERFACE MOUNTING PLATE	304 SSSL
19	1	0	1	D1002340	V1	SLC ACB SUSPENSION ROD	316 SSSL
20	1	0	1	D1002612	V1	SLC UPPER TUBE	6061-T6
21	1	0	1	D1002610	V1	SLC TUBE UP CONNECTOR PLATE	6061-T6
22	1	0	1	D1002581	V1	SLC SUSPENSION ROD SUPPORT	6061-T6

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

- 6. APPROXIMATE WEIGHT = X.XXX LB.
- 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
- 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 9. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO. REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 JUN 2010	E1000191	



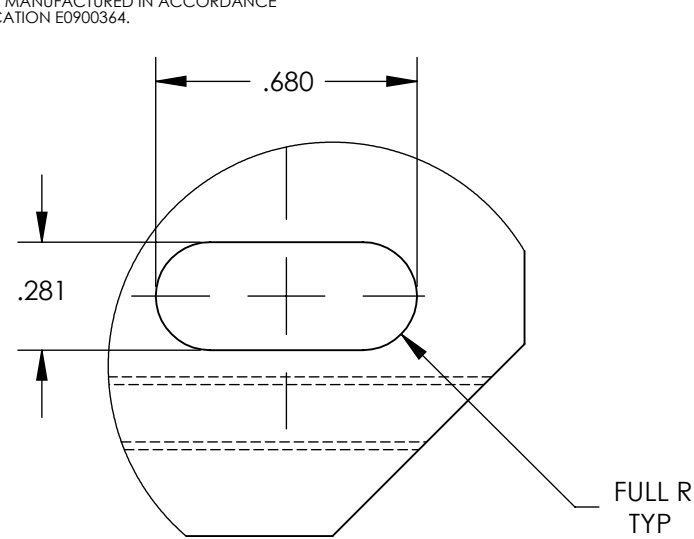
D1000909\_AdLIGO\_AOS\_SLC 4-Way Copper Plate, PART PDM REV: X-010, DRAWING PDM REV: X-017

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
TOLERANCES: .XX ± .01 .XXX ± .005		MATERIAL <b>99.999% COPPER</b>		FINISH <b>63 μinch</b>		NEXT ASSY <b>D1000863, D1002564</b>	
ANGULAR ± 1.0°						SCALE: 1:1	
				DESIGNER N.Nguyen		DATE 01 Jun 2010	
				DRAFTER TQ. NGUYEN		DATE 25 MAY 2010	
				CHECKER M. SMITH		DATE 30 JUN 2010	
				APPROVAL D. COYNE		DATE 10 SEP 2010	
				SIZE <b>B</b>		DWG. NO. <b>D1000909</b>	
				REVISION v1		SHEET 1 OF 1	

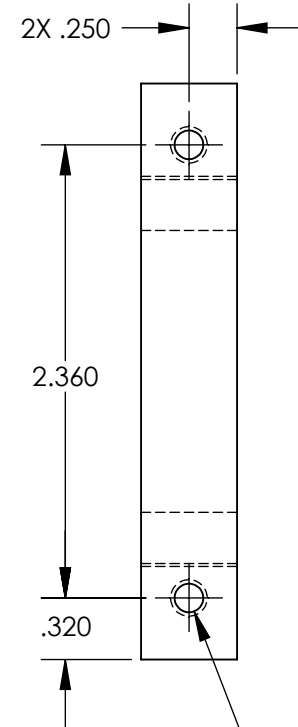
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

REV.	DATE	DCN #	DRAWING TREE #
v1	07 JUN 2010	E1000191	

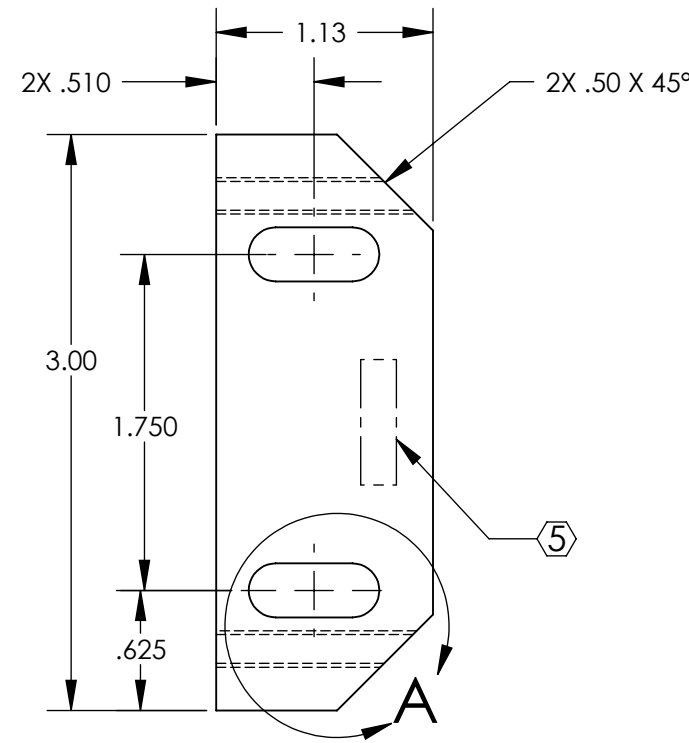
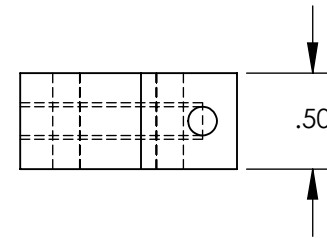
- D  
 6. APPROXIMATE WEIGHT = .13 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.



DETAIL A  
 SCALE 2:1  
 2X



2X DRILL AND TAP  
 10-24 UNC -2B THRU  
 +.005 OVERSIZE TAP



**NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)**

DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 .XX ± .01  
 .XXX ± .005  
 ANGULAR ± 1.0°

1. INTERPRET DRAWING PER ASME Y14.5-1994.  
 2. REMOVE ALL SHARP EDGES, R.02 MIN.  
 3. DO NOT SCALE FROM DRAWING.  
 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.

MATERIAL 6061-T6 Al FINISH 63 μinch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM ADVANCED LIGO SUB-SYSTEM AOS  
 NEXT ASSY D100863,D1002564

PART NAME			SLC COPPER SUPPORT PLATE		REV.
DESIGNER	N.Nguyen	01 Jun 2010	SIZE DWG. NO.	B	v1
DRAFTER	TQ. NGUYEN	19 MAY 2010	D1000929		
CHECKER	M. SMITH	30 JUN 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
APPROVAL	D. COYNE	10 SEP 2010			

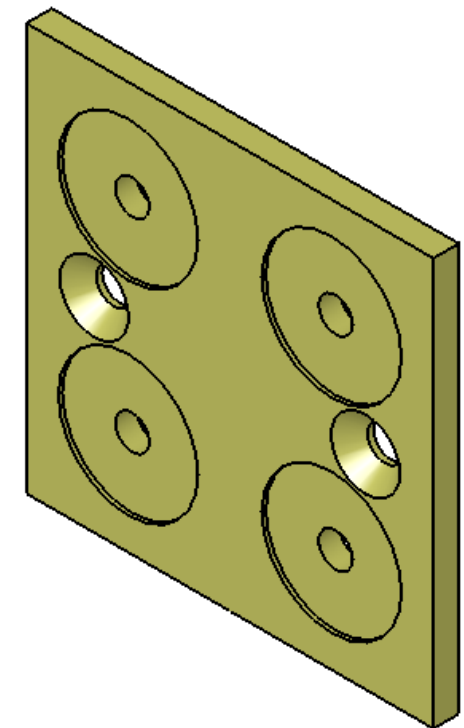
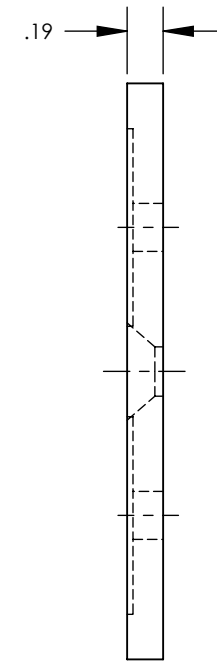
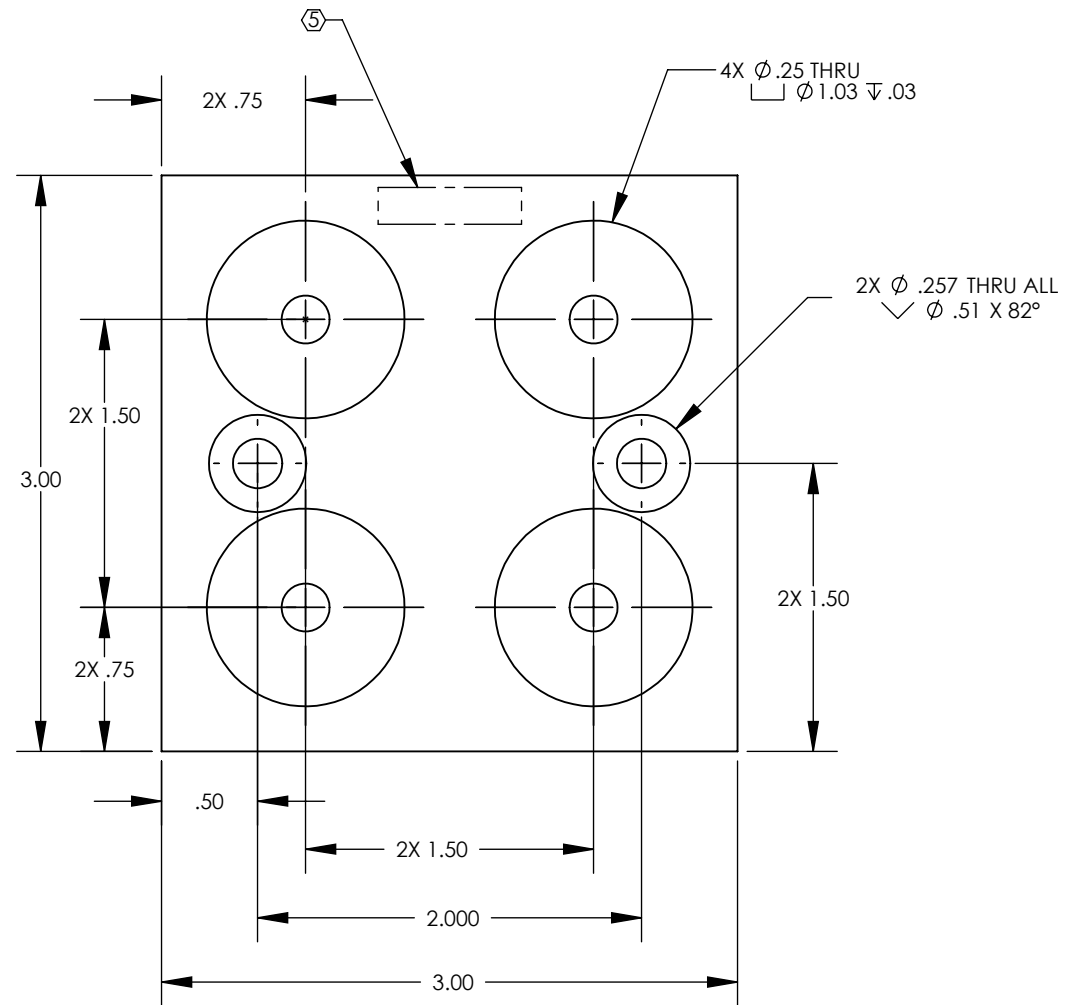
D1000929\_AdlLIGO\_AOS\_SLC Copper Support Plate, PART PDM REV: X-005, DRAWING PDM REV: X-005

D1000930\_AdlIGO\_AOS\_SLC Magnet Holder Steel Plate, PART PDM REV: X-011, DRAWING PDM REV: X-016

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = .44 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.  
 9. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 JUN 2010	E1000191	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		SLC MAGNET HOLDER STEEL PLATE	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM AOS		DESIGNER N.Nguyen 01 Jun 2010	
ANGULAR ± 1.0°				NEXT ASSY D1001007		DRAFTER TQ. NGUYEN 19 MAY 2010	
MATERIAL 416 SSSL				FINISH 63 μinch		CHECKER M. SMITH 30 JUN 2010	
						APPROVAL D. COYNE 01 SEP 2010	
						SCALE: 1:1 PROJECTION:	
						SHEET 1 OF 1	

D1001044\_AdlIGO\_AOS\_Beam Dump FM Elliptical Down Tube, PART PDM REV: X-001, DRAWING PDM REV: X-001

- NOTES CONTINUED:**
- ⑤ SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
EXAMPLE (PART): 001-v1  
EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD
  - D 6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  - 8. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO. REFER TO LIGO-E0900364.
  - 9. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.
  - ⑩ ELECTROPOLISHING PER E0900364, SECTION 5.1 TO REMOVE ALL SURFACE OXIDES AND POTENTIALLY EMBEDDED CONTAMINANTS.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-

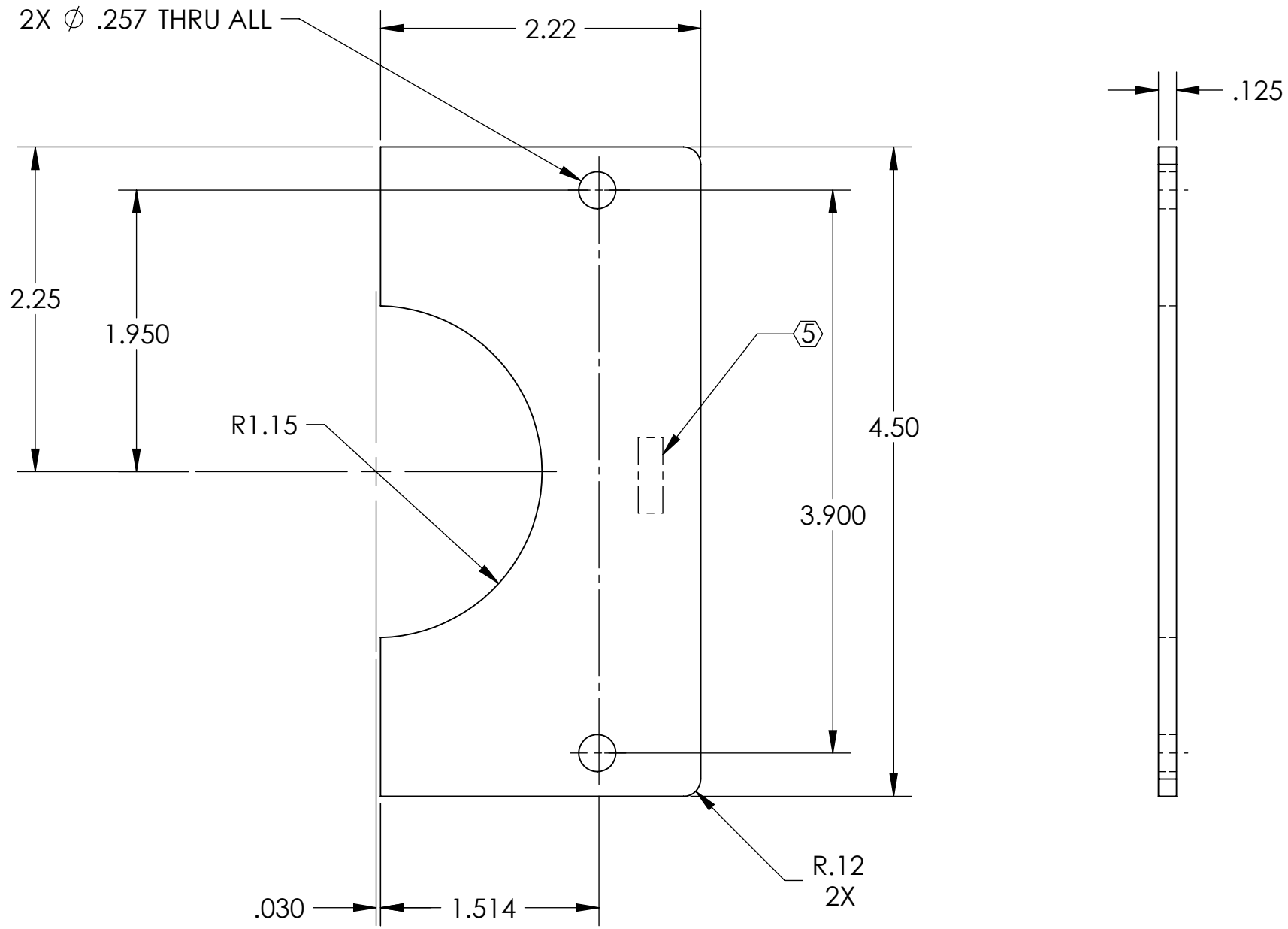


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
DIMENSIONS ARE IN		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM	SUB-SYSTEM	BEAM DUMP FM ELLIPTICAL DOWN TUBE			
TOLERANCES: .XX ± .02 .XXX ± .010		MATERIAL	FINISH	NEXT ASSY	DESIGNER	DRW. NO.	SIZE	DWG. NO.	REV.
ANGULAR ± .5°		6061-T6 Al, TUBE	⑩	D1002850	MRUIZ	05 NOV 2010	B	D1001044	v1
					CHECKER	SCALE: 1:3	PROJECTION:	SHEET 1 OF 1	
					APPROVAL				

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = .096 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.  
 9. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	07 JUN 2010	E1000191	



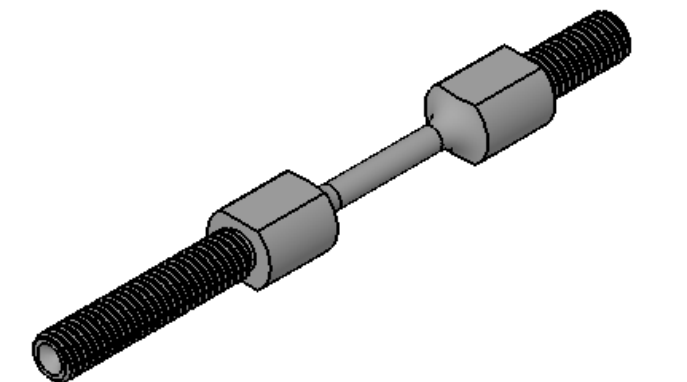
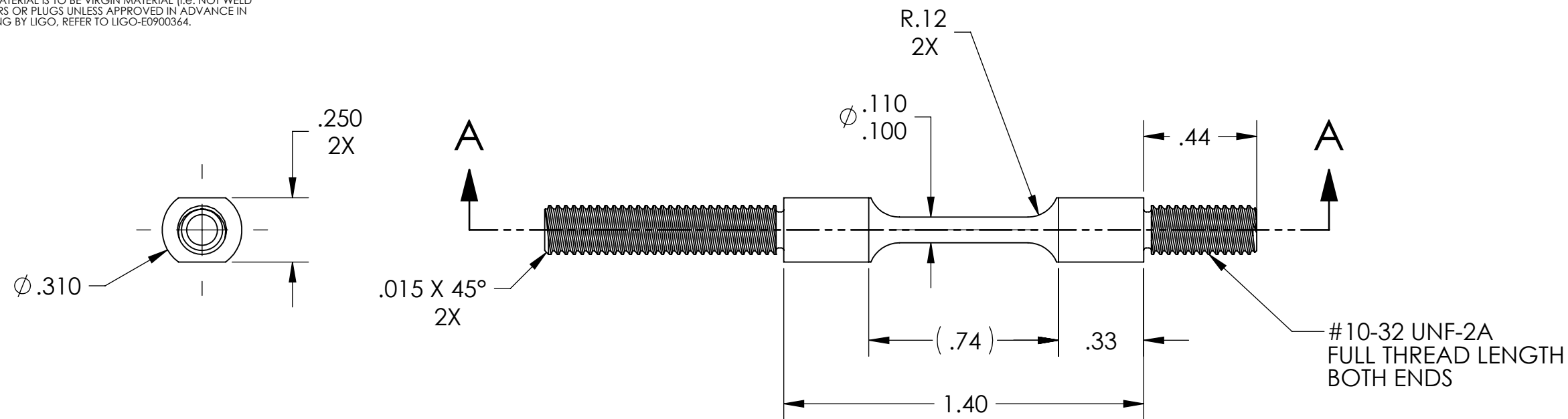
D1001120\_AdlIGO\_AOS\_SLC Earthquake Stop Ring, PART PDM REV: X-012, DRAWING PDM REV: X-018

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		SLC EARTHQUAKE STOP RING	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM AOS		DESIGNER	N.Nguyen 01 Jun 20
ANGULAR ± 1.0°				NEXT ASSY D1000863, D1002564		DRAFTER	TQ. NGUYEN 19 MAY 2010
MATERIAL 6061-T6 Al		FINISH 63 μinch		CHECKER	M. SMITH 30 JUN 2010	SIZE DWG. NO.	B D1001120
				APPROVAL	D. COYNE 10 SEP 2010	REV.	v1
						SCALE:	1:1
						PROJECTION:	ASME Y14.5
						SHEET 1 OF 1	

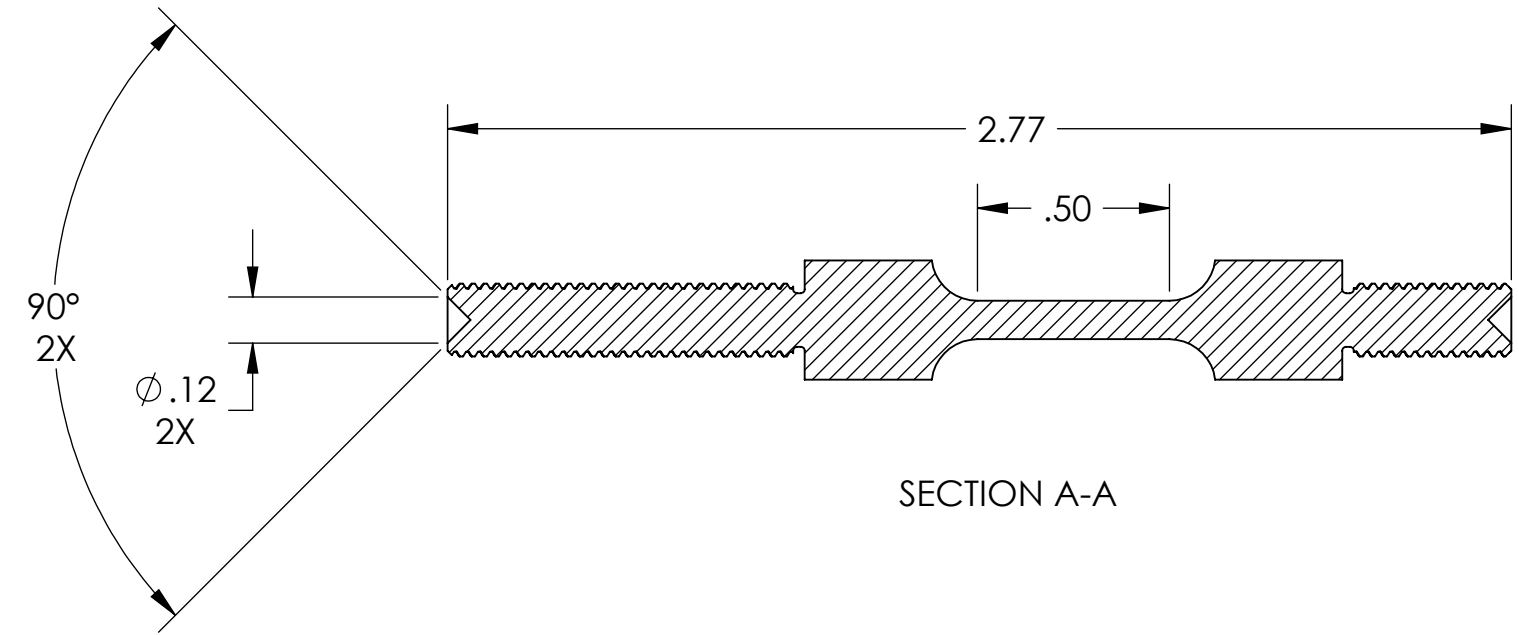
NOTES CONTINUED:

- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
EXAMPLE (PART): 001-v1  
EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD
- 6. APPROXIMATE WEIGHT = X.XXX LB.
- 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
- 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 9. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 OCT 2010	E1000285	-
-	-	-	-
-	-	-	-



ISO VIEW FOR REFERENCE ONLY



SECTION A-A

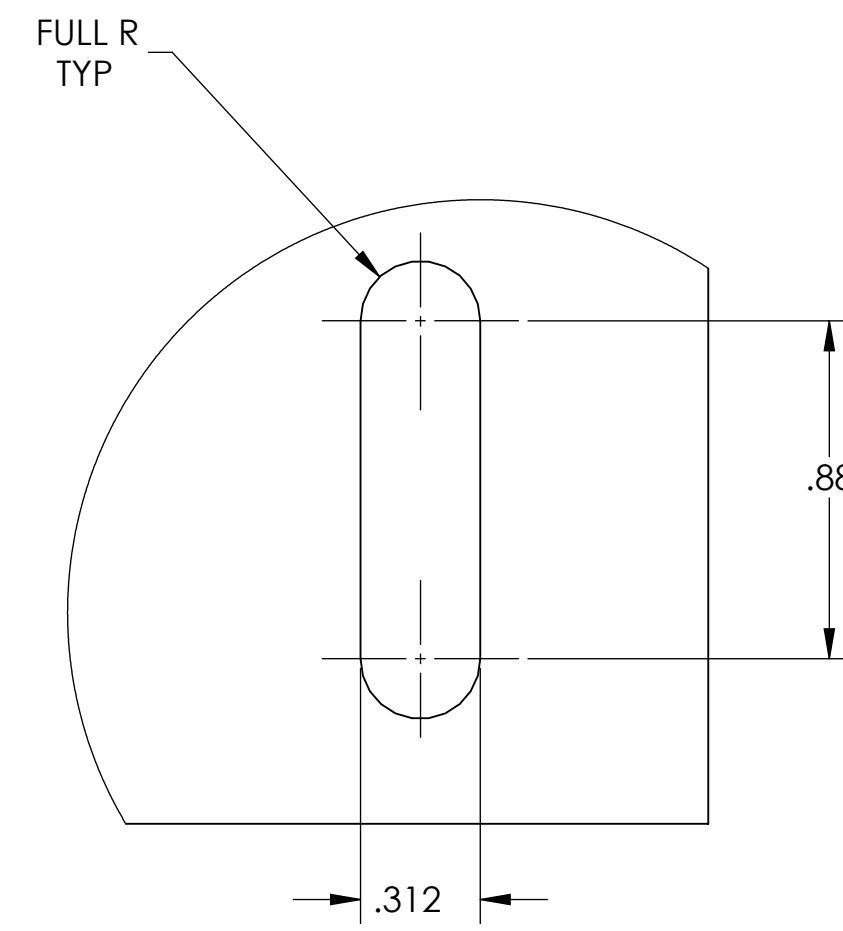
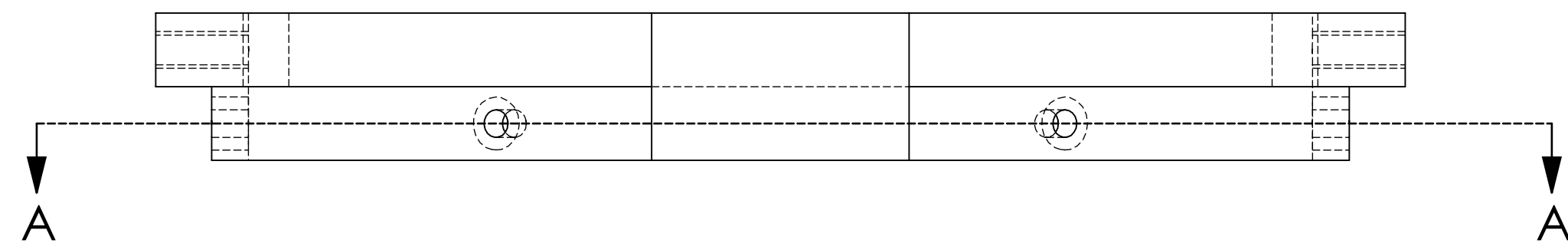
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		SLC ACB SUSPENSION ROD	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM AOS		DESIGNER N.Nguyen 01 SEP 2010	
ANGULAR ± 0.5°				NEXT ASSY D1001005		DRAFTER TQ. NGUYEN 18 OCT 2010	
MATERIAL 316 SSSL				FINISH 63 μinch		CHECKER M. SMITH 01 NOV 2010	
						APPROVAL D. COYNE 10 NOV 2010	
						SCALE: 2:1	
						PROJECTION:	
						SHEET 1 OF 1	

D1002340\_AdlIGO\_AOS\_SLC Suspension Rod, PART PDM REV: X-005, DRAWING PDM REV: X-011

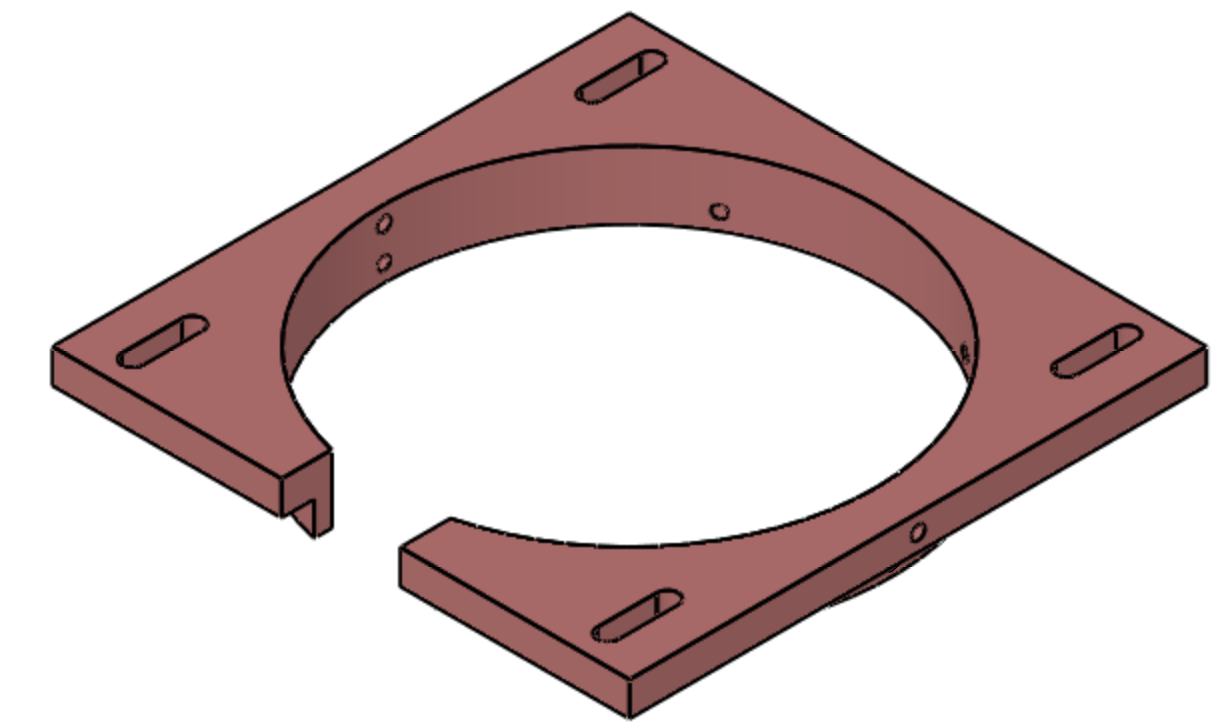
NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

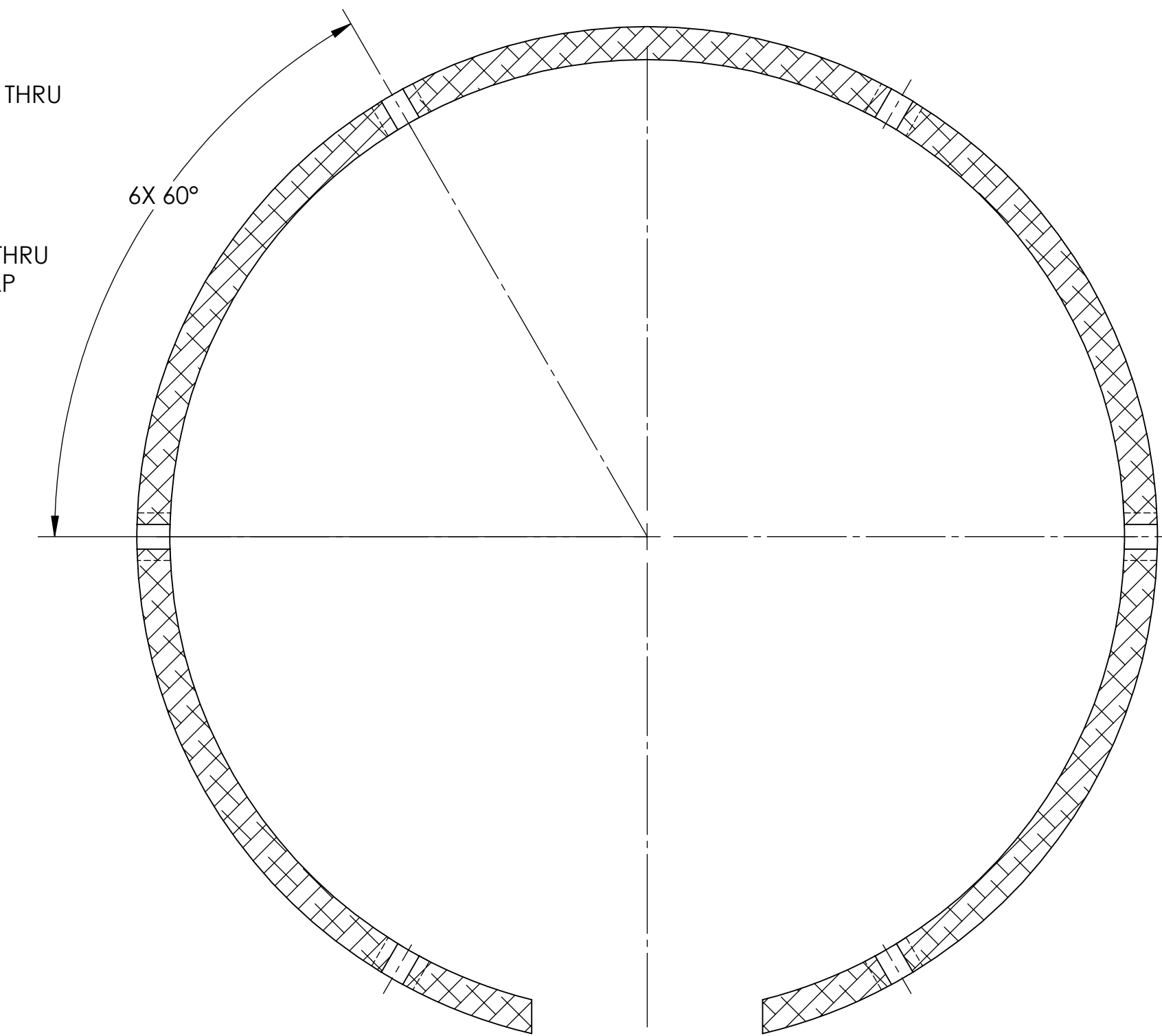
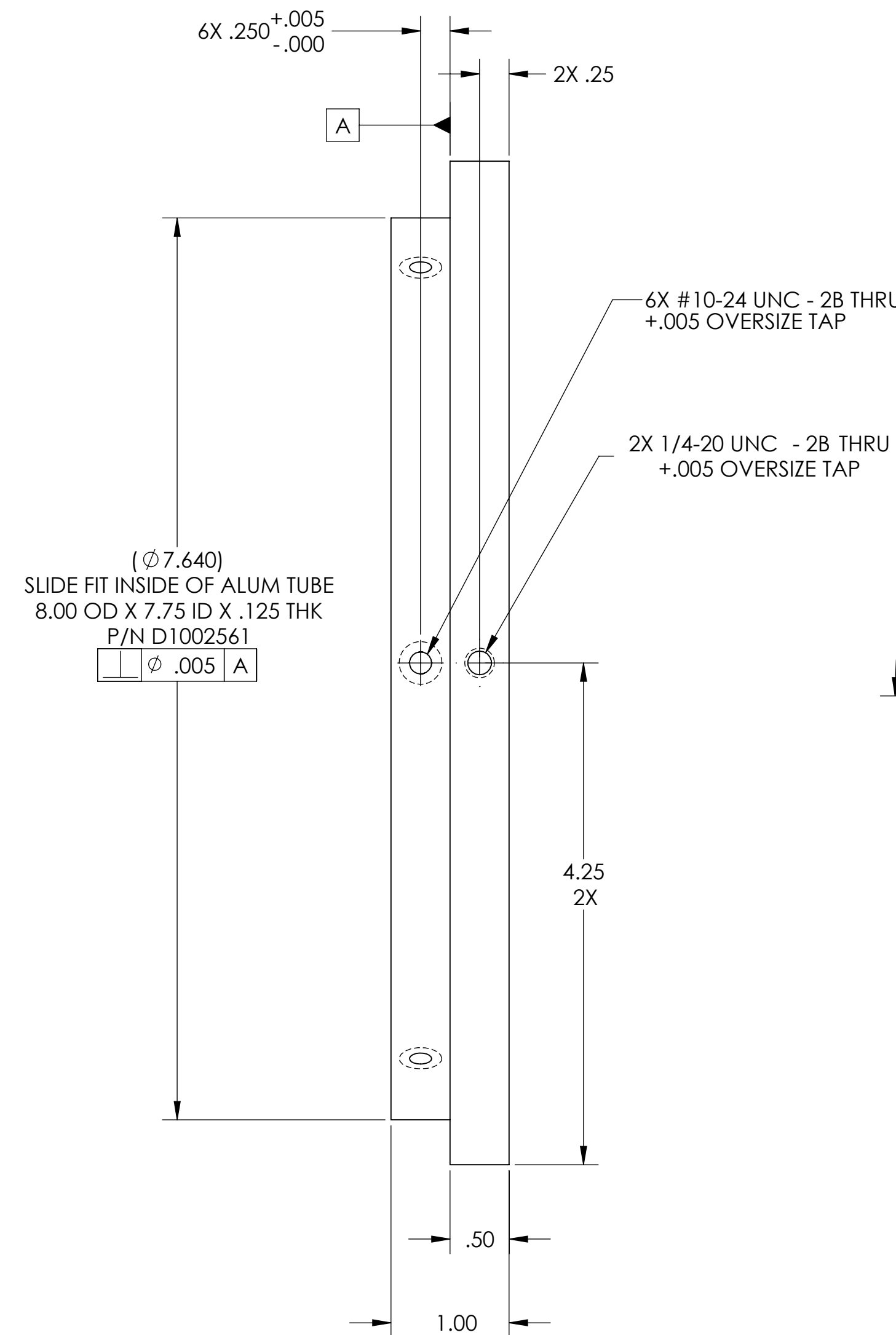
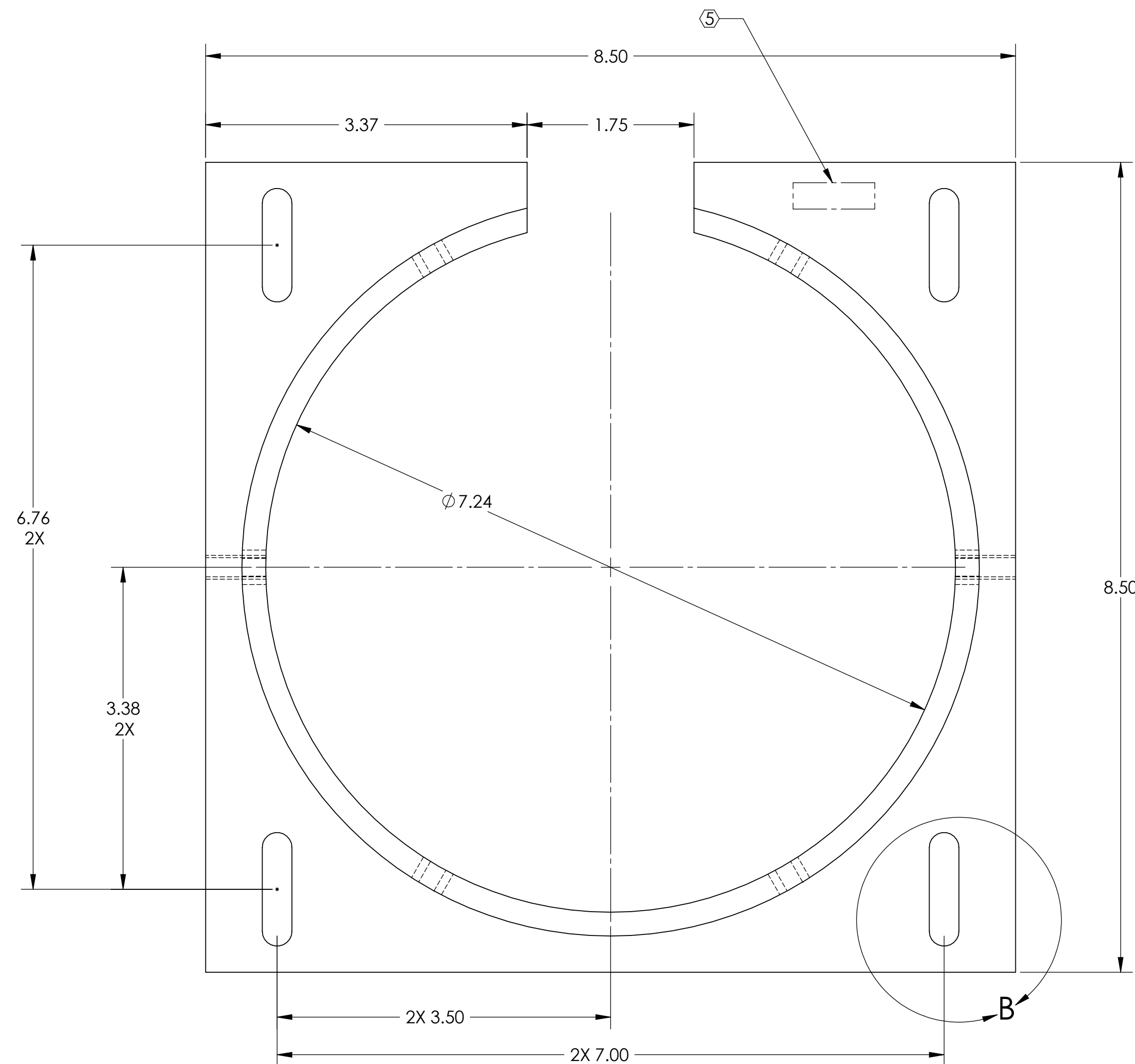
REV.	DATE	DCN #	DRAWING TREE #
v1	03 JUN 2010	E1000285	



DETAIL B  
 SCALE 2 : 1  
 4X



FOR REFERENCE VIEW ONLY  
 NO SCALE



SECTION A-A

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± .5°	
MATERIAL	FINISH
6061-T6 Al	63 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SYSTEM	SUB-SYSTEM
ADVANCED LIGO	AOS
NEXT ASSY	D1002563

PART NAME		SLC DAMPING TUBE TOP PLATE	
DESIGNER	N.Nguyen	01 Jun 2010	SIZE DWG. NO.
DRAFTER	TG. NGUYEN	21 MAY 2010	D D1002560
CHECKER	M. SMITH	01 NOV 2010	
APPROVAL	D. COYNE	10 NOV 2010	SCALE: 1:1
PROJECTION:		SHEET 1 OF 1	

D1002560\_AutLIGO\_AOS\_SLC Damping Tube Top Plate\_PART PDM REV: X.008\_DRAWING PDM REV: X.007

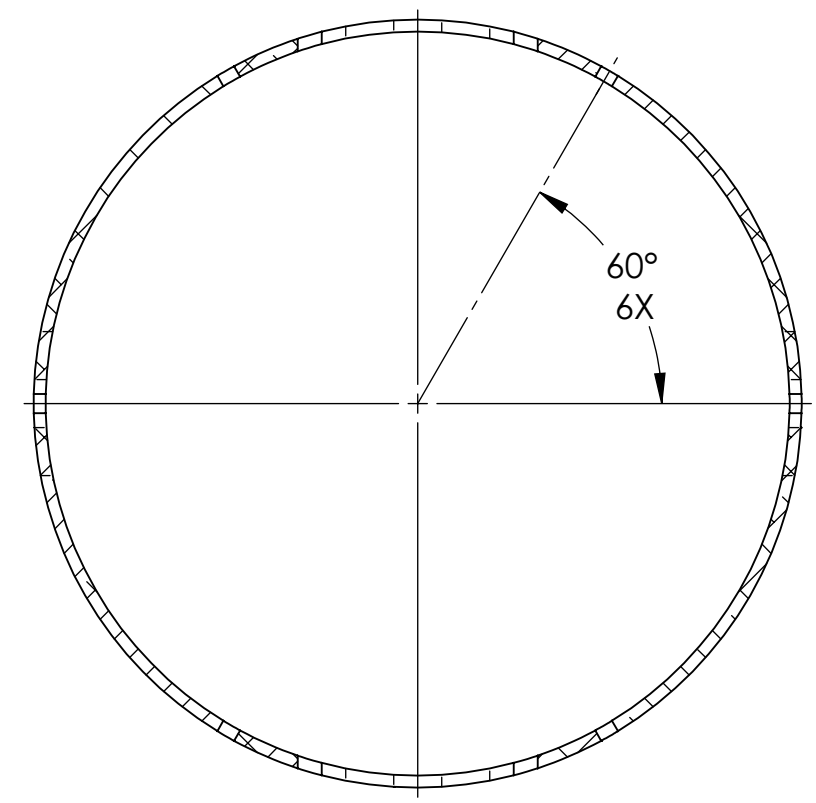


NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

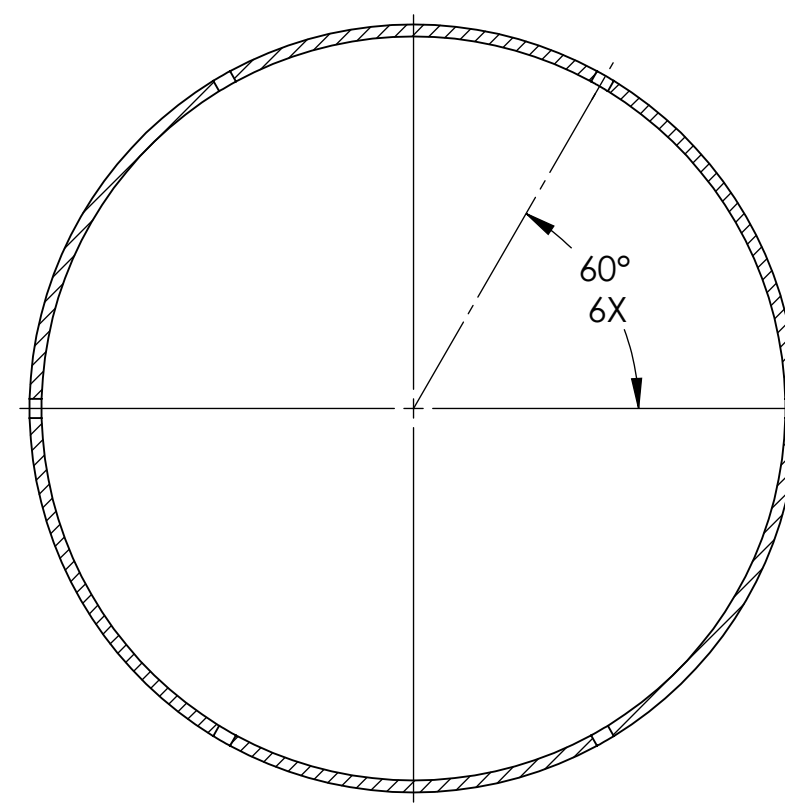
6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.  
 7. ELECTROPOLISHING PER E0900364, SECTION 5.1, TO REMOVE ALL SURFACE OXIDES AND POTENTIALLY EMBEDDED CONTAMINANTS.

8. SUGGESTING RESOURCE:  
 COAST ALUMINUM AND ARCM  
 P/N 818TB61  
 Phone: 800-810 6061  
 Fax: 562-946 4188

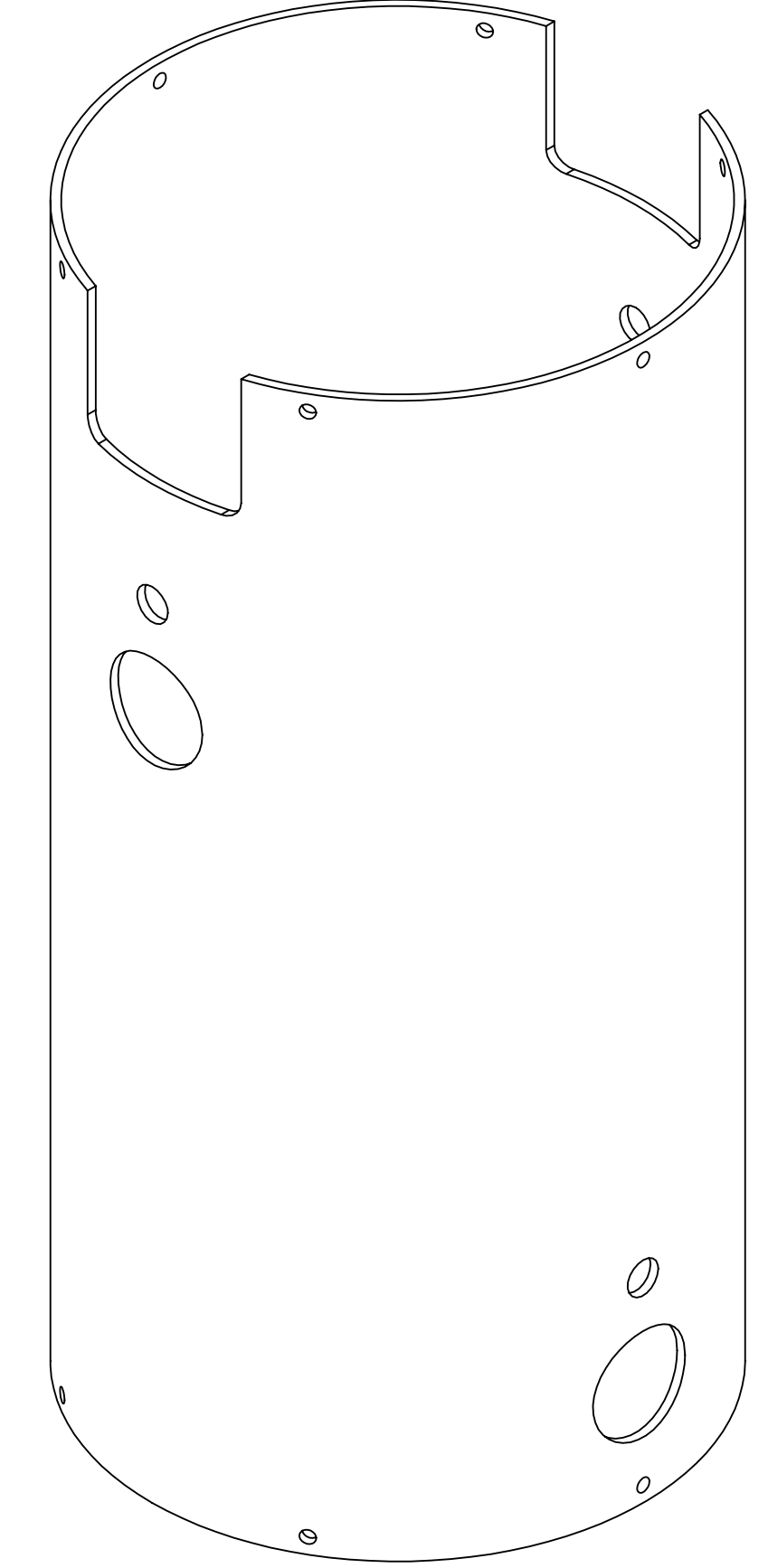
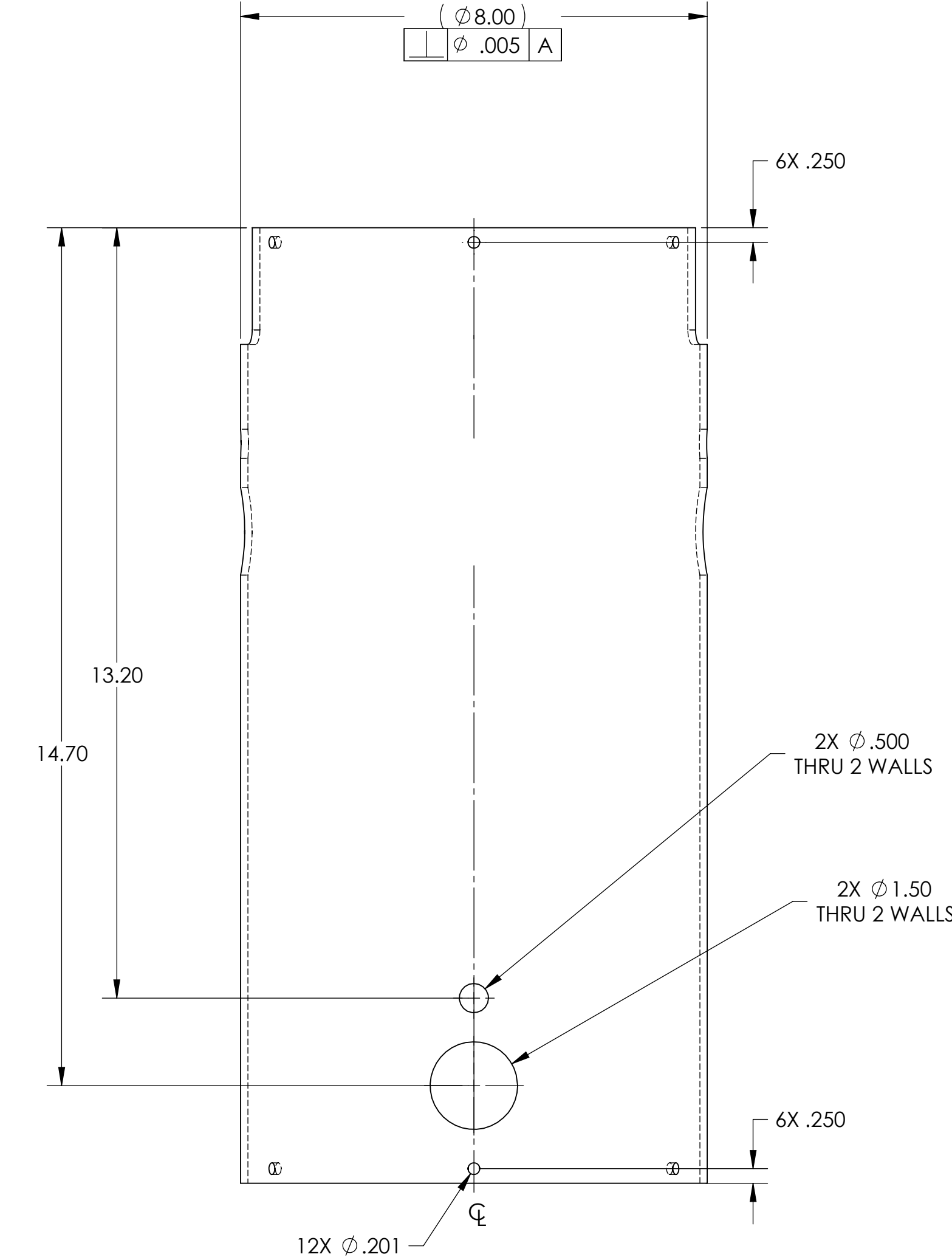
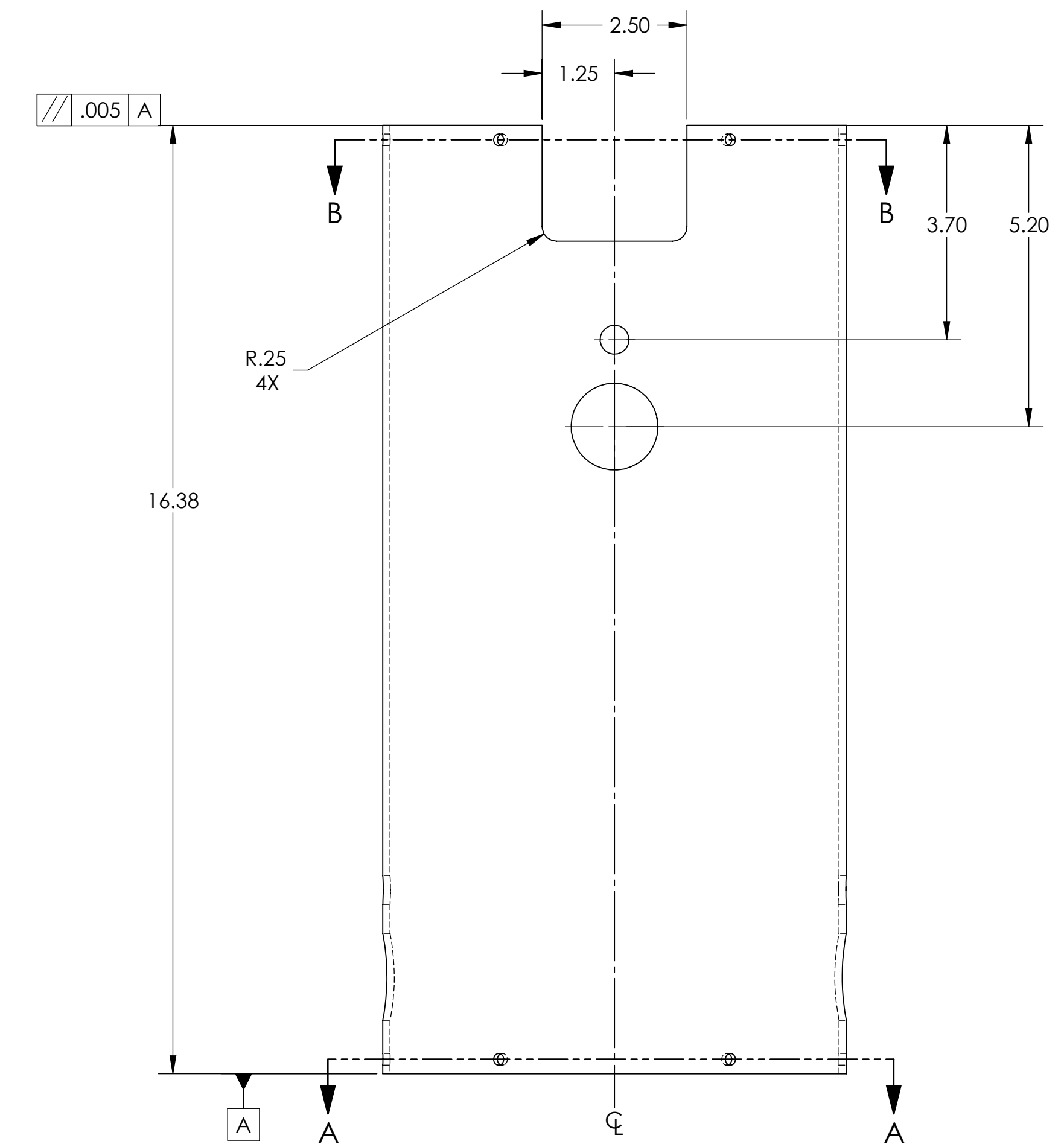
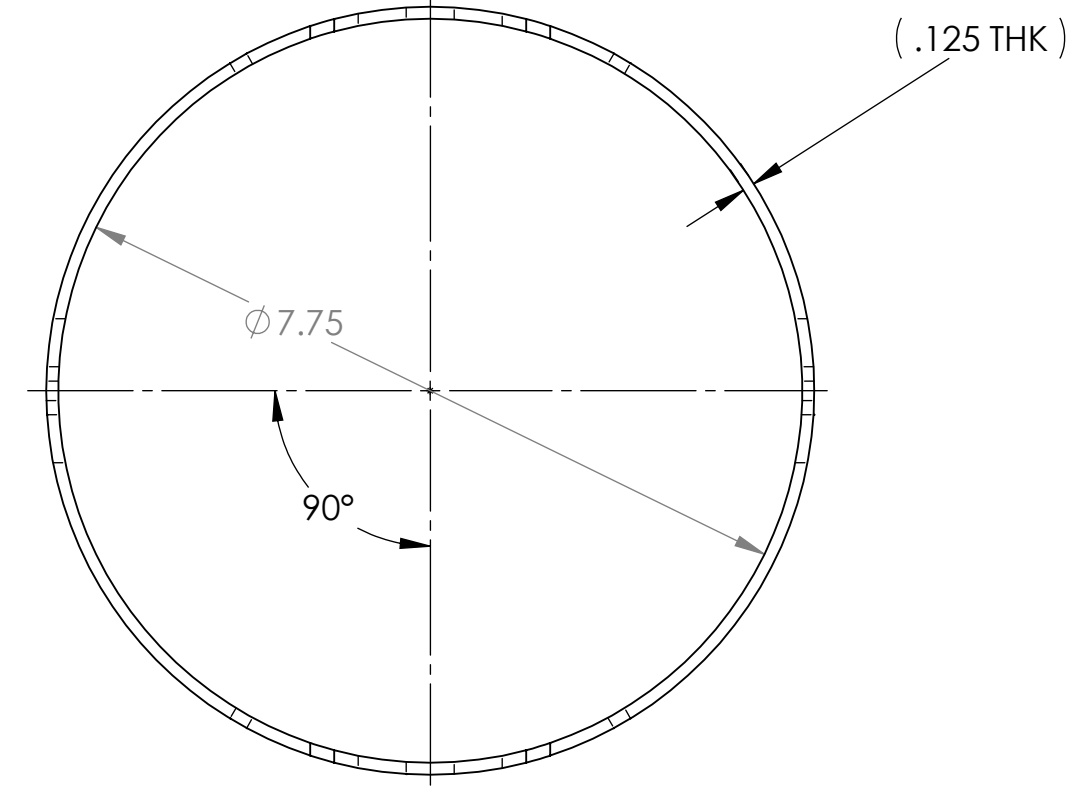
REV.	DATE	DCN #	DRAWING TREE #
v1	03 JUN 2010	E1000285	-
-	-	-	-
-	-	-	-



SECTION B-B



SECTION A-A



FOR REFERENCE ONLY  
NO SCALE

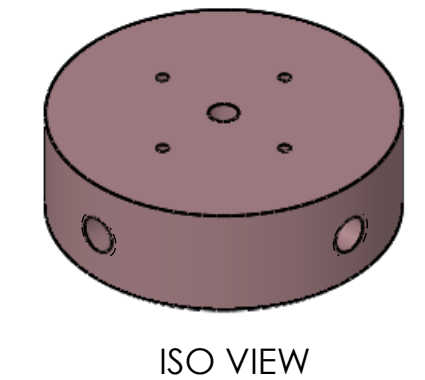
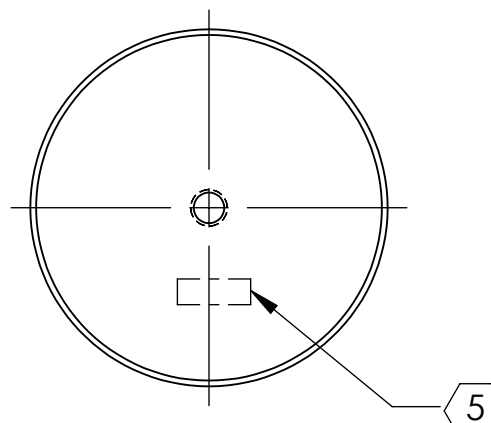
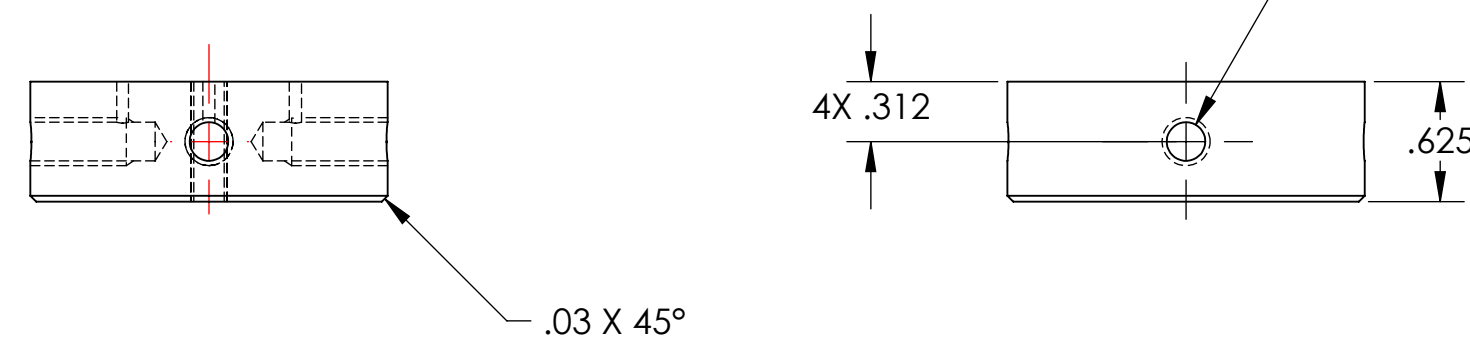
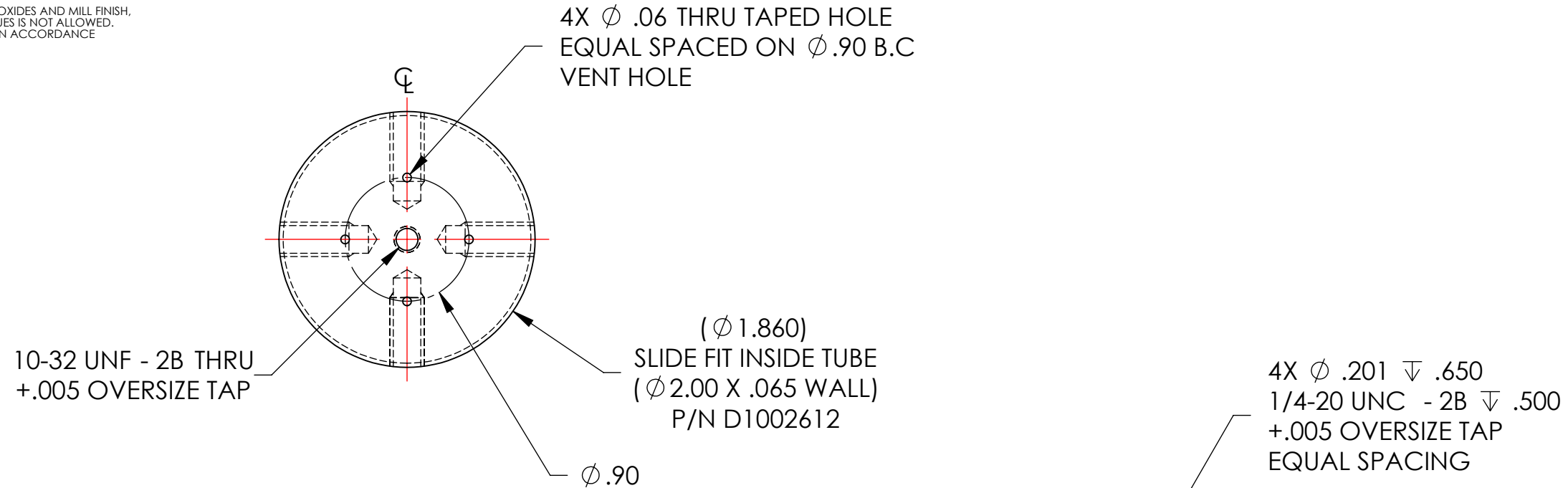
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY				PART NAME															
DIMENSIONS ARE IN INCHES				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				SLC DAMPING 8 DIA TUBE															
TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 1.0°								SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS		DESIGNER N.Nguyen		DATE 01 Jul 2010		SIZE D		DWG. NO. D1002561		REV. v1			
MATERIAL 6061-T6 Al				FINISH 63 μinch				NEXT ASSY D1002563				CHECKER M. SMITH		DATE 01 NOV 2010		APPROVAL D. COYNE		SCALE: 1:2		PROJECTION:		SHEET 1 OF 1	

D:\002561\_Audi\GO\_AOS\_SLC Damping 8 Dia Tube\_PART PDM REV: X-003\_DRAWING PDM REV: X-008

**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
 EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	02 JUNE 2010	E1000285	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 1.0°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SLC SUSPENSION ROD SUPPORT	
MATERIAL 6061-T6 Al		FINISH 63 μinch		SYSTEM ADVANCED LIGO SUB-SYSTEM AOS		DESIGNER N.Nguyen 01 Jun 2010 DRAFTER TQ. NGUYEN 24 MAY 2010 CHECKER M. SMITH 01 NOV 2010 APPROVAL D. COYNE 10 NOV 2010	
NEXT ASSY D1002582				SIZE DWG. NO. B D1002581		REV. v1	
				SCALE: 1:1		PROJECTION:  SHEET 1 OF 1	

D1002581\_AdlIGO\_AOS\_SLC Suspension Rod Support, PART PDM REV: X-004, DRAWING PDM REV: X-004

NOTES CONTINUED:

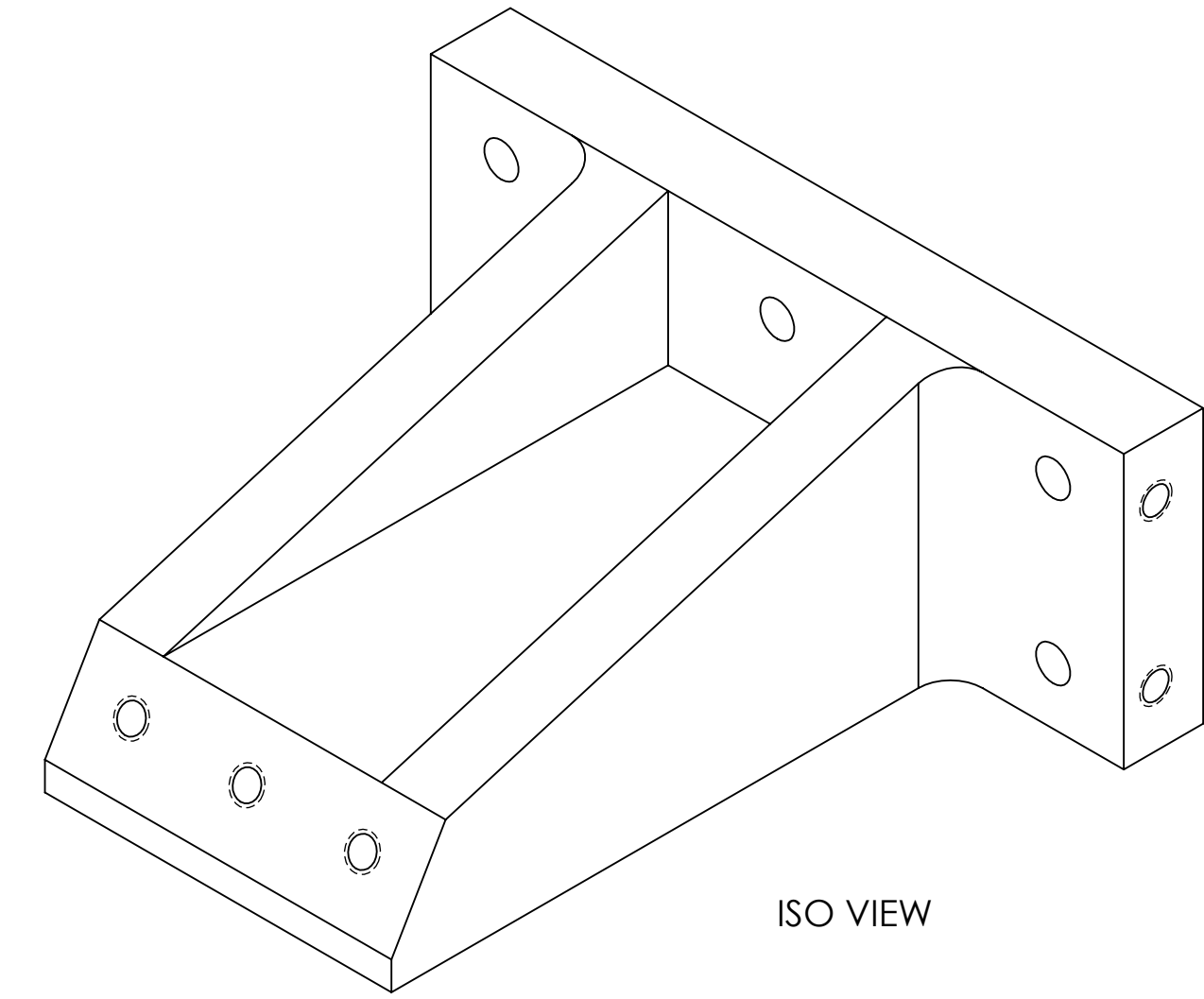
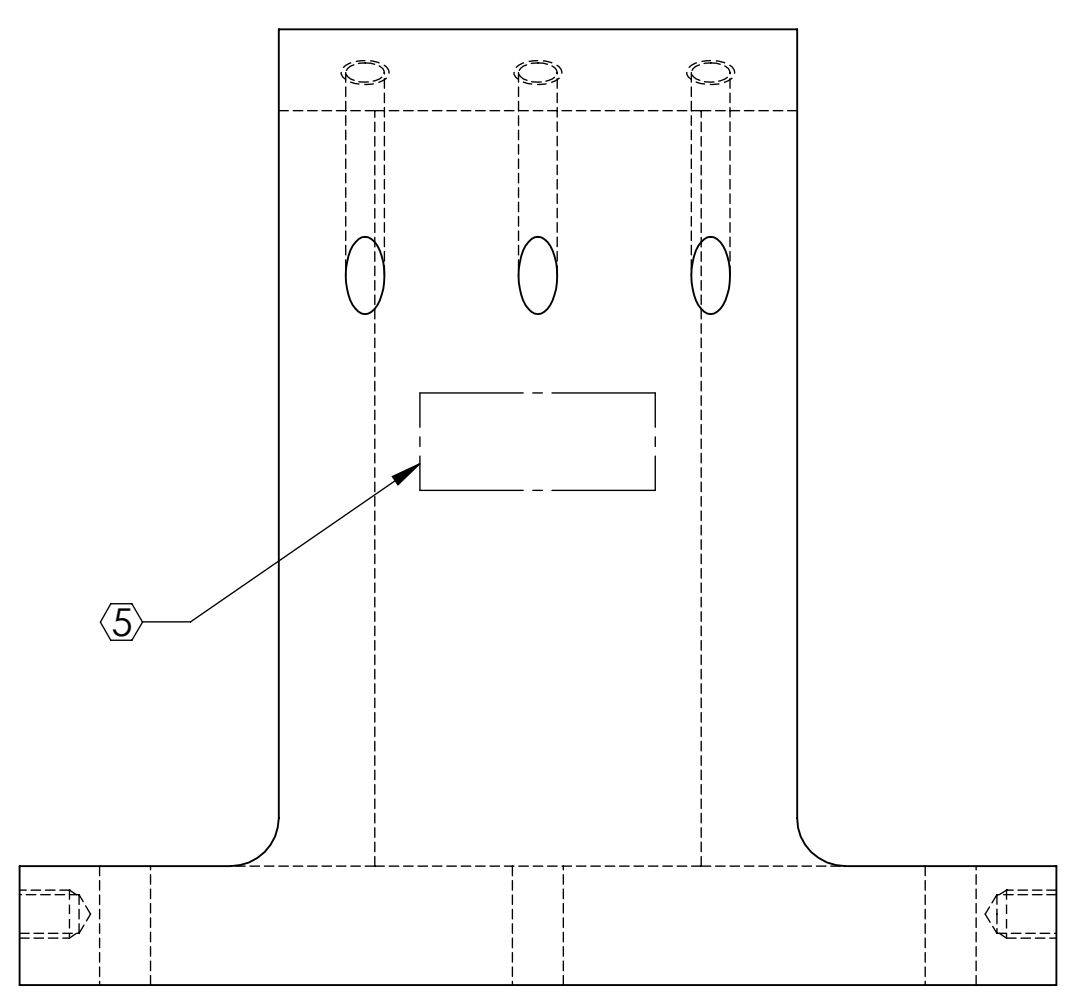
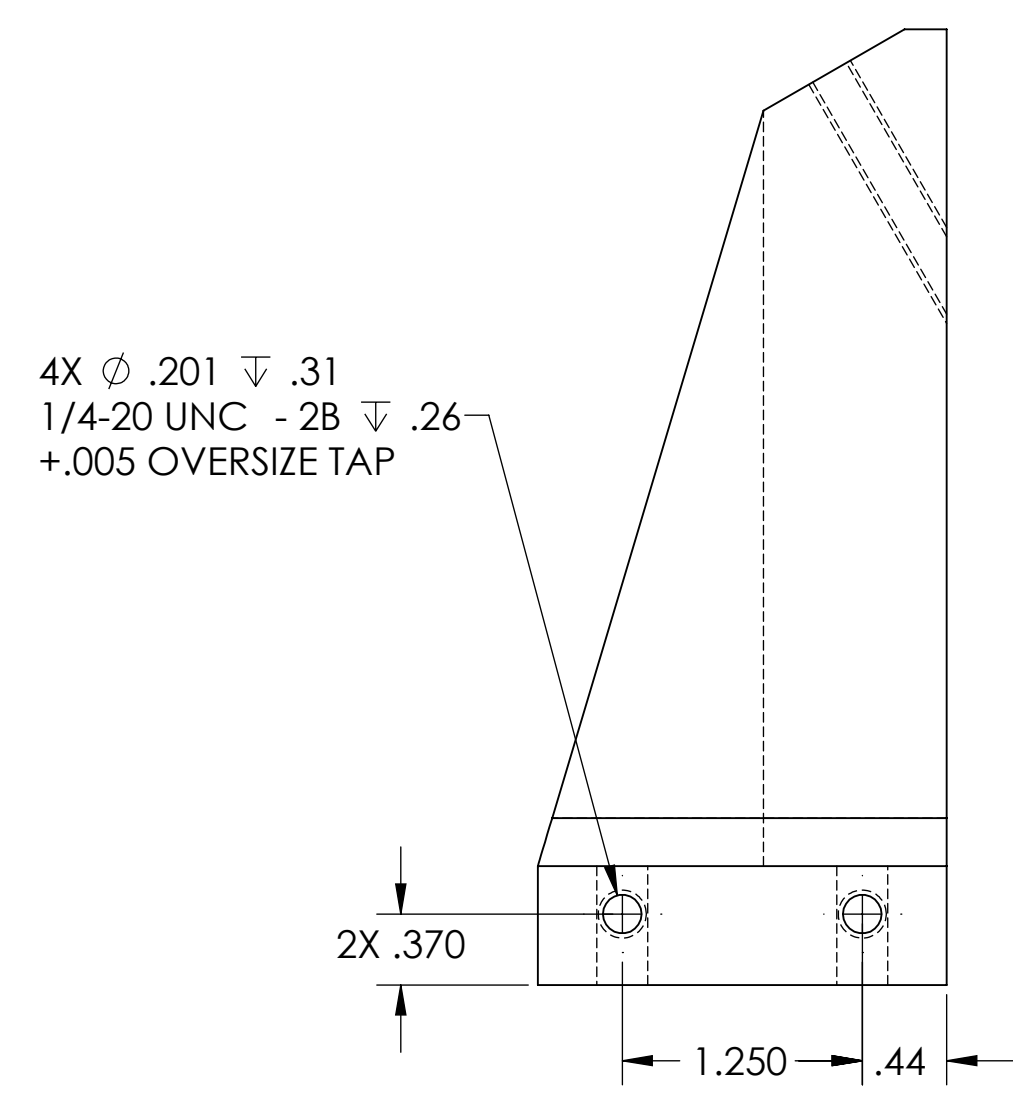
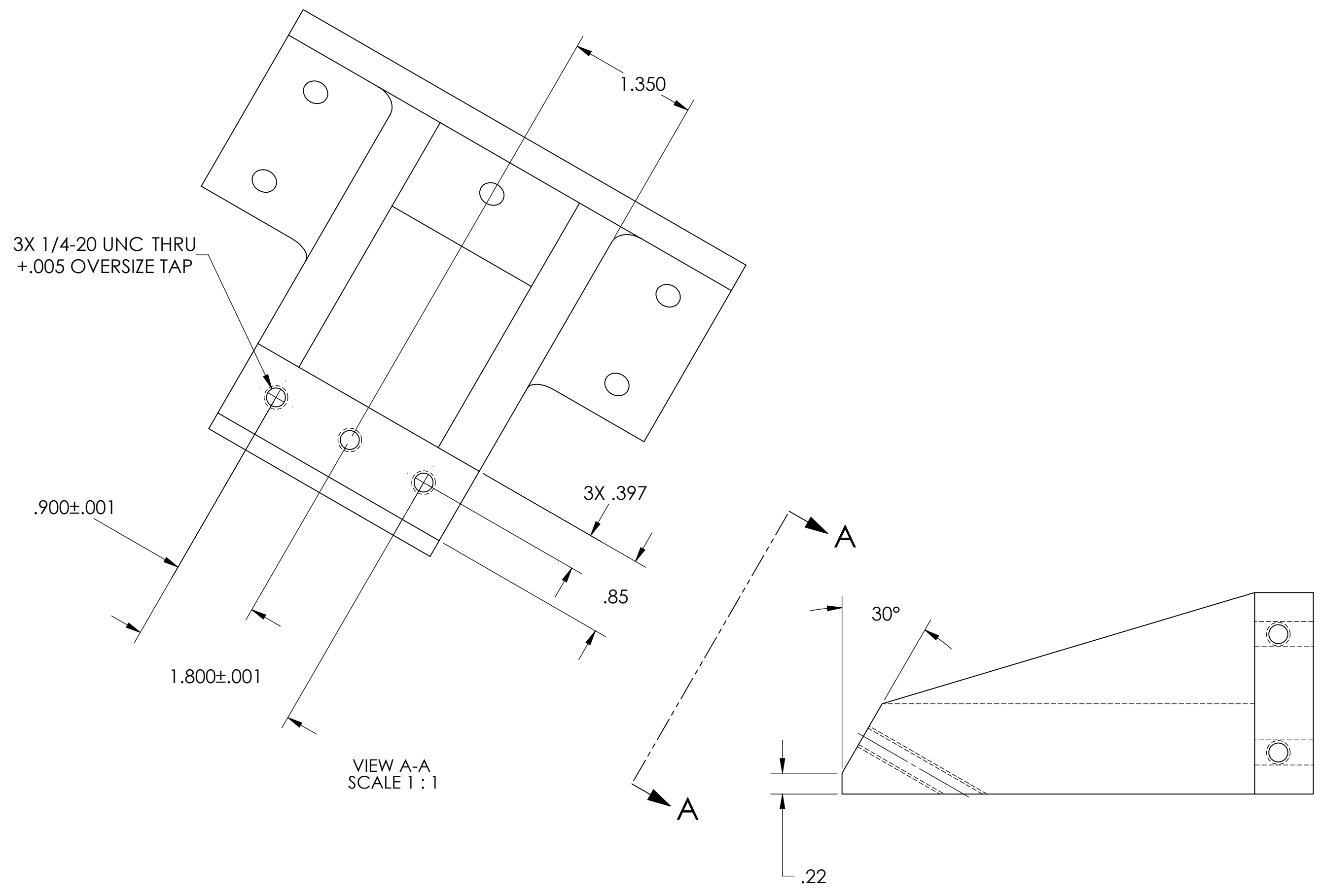
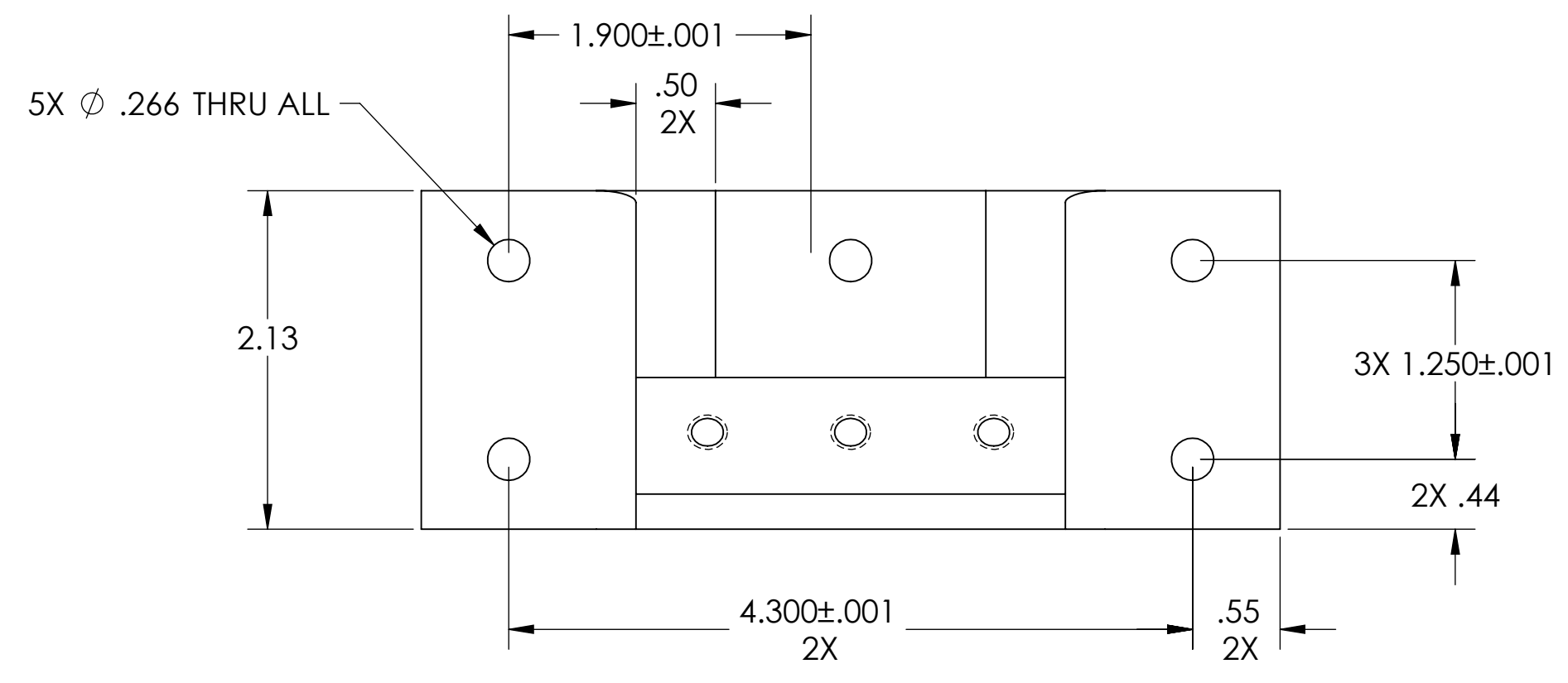
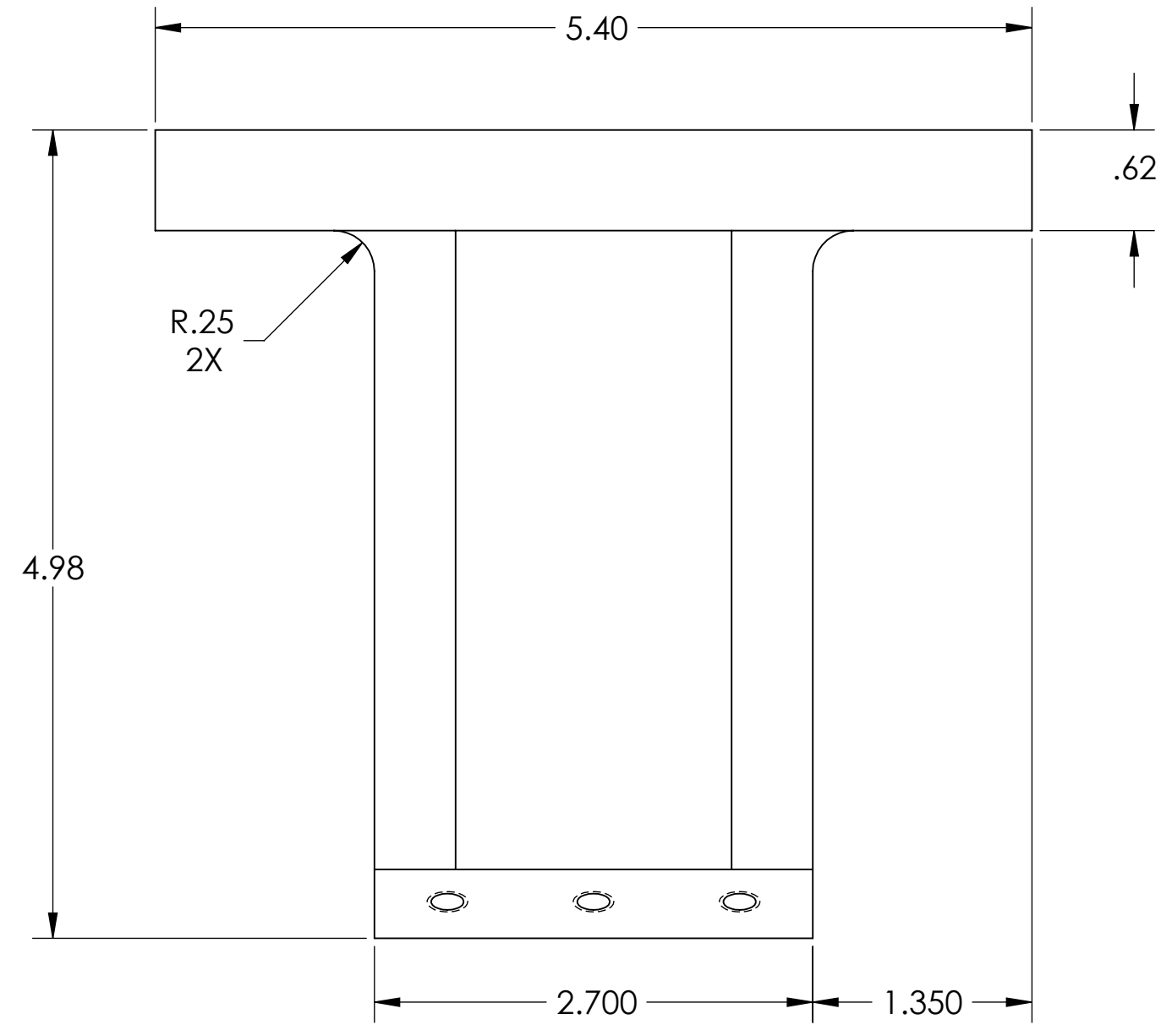
5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

8. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 SEP 2010	D1000285	



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 1.0°		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>SLC BLADE MOUNTING BRACKET</b>	
MATERIAL: 6061-T6 Al FINISH: 63 μinch		SYSTEM: ADVANCED LIGO SUB-SYSTEM: AOS NEXT ASSY: D1001005		DESIGNER: N.Nguyen 01 Jun 2010 DRAFTER: TG. NGUYEN 25 AUG 2010 CHECKER: M. SMITH 01 NOV 2010 APPROVAL: D. COYNE 20 NOV 2010	
		SIZE: D DWG. NO.: D1002609		REV.: v1	
		SCALE: 1:2 PROJECTION:		SHEET 1 OF 1	

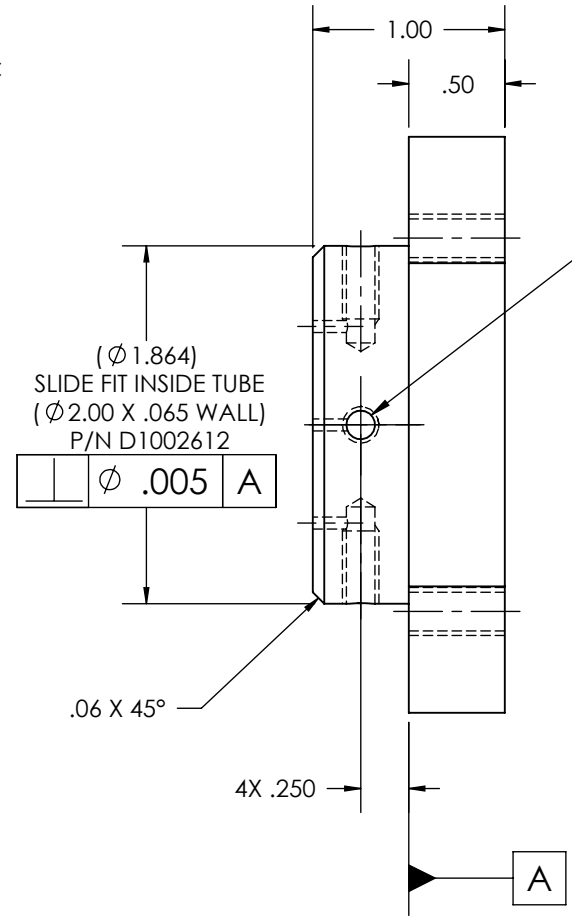
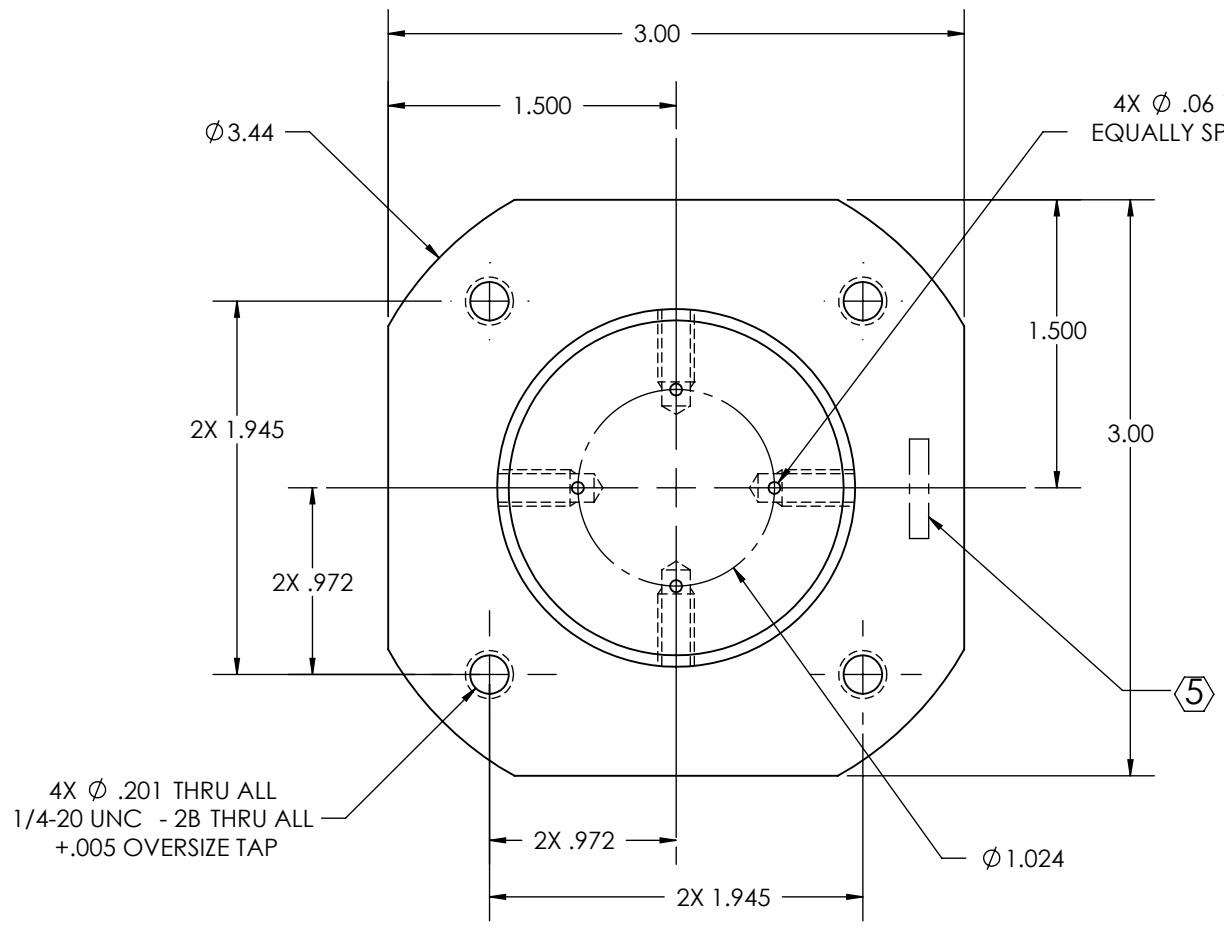
D1002609\_AutLIGO\_AOS\_SLC Blade Mounting Bracket\_PART FDM REV: X.005 DRAWING FDM REV: X.005

D1002610\_AdLIGO\_AOS\_SLC Tube Up Connector Plate, PART PDM REV: X-002, DRAWING PDM REV: X-004

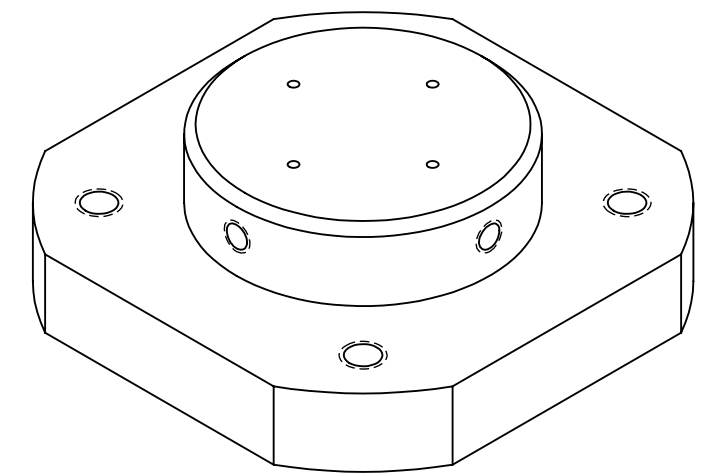
**NOTES CONTINUED:**  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF APPLICABLE), AND QUANTITY. IF PARTS ARE TOO SMALL TO SCRIBE, BAGGING AND TAGGING ALONE IS SUFFICIENT.  
 EXAMPLE (PART): 001-v1  
 EXAMPLE (TAG): DXXXXXX-VY, TYPE-XX, QTY: TBD

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	19 JUN 2010	E1000285	-
-	-	-	-
-	-	-	-



4X # 10-24 UNC - 2B  $\nabla$  .50  
 EQUALLY SPACED ON  $\phi$  1.864 B.C.  
 +.005 OVERSIZE TAP



ISO VIEW

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX $\pm$ .01 .XXX $\pm$ .005 ANGULAR $\pm$ 1.0°	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
6061-T6 Al	63 $\mu$ inch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
NEXT ASSY		D1002582	

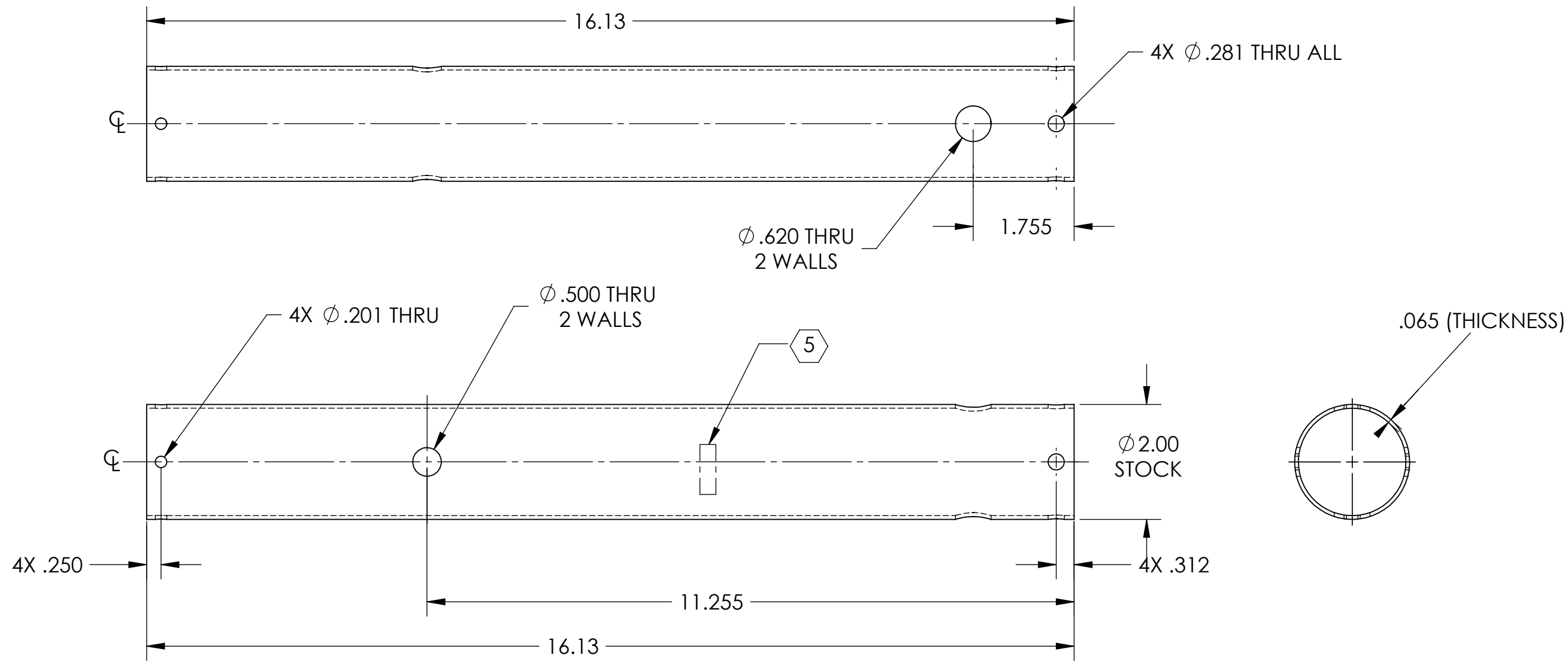
DESIGNER		N.Nguyen		01 Jul 2010		SIZE		DWG. NO.		REV.	
DRAFTER		TQ. NGUYEN		19 JUL 2010		B		D1002610		v1	
CHECKER		M. SMITH		19 JUL 2010		SCALE:		1:1		PROJECTION:	
APPROVAL		D. COYNE		10 SEP 2010		SCALE:		1:1		PROJECTION:	
						SHEET		1		OF 1	

NOTES CONTINUED:

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

- 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 7. ELECTROPOLISHING PER E0900364, SECTION 5.1, TO REMOVE AL SURFACE OXIDES AND POTENTIALLY EMBEDDED CONTAMINANTS

REV.	DATE	DCN #	DRAWING TREE #
v1	19 JUL 2010	E1000285	



D1002612\_AdlIGO\_AOS\_SLC\_UpperTube, PART PDM REV: X-004, DRAWING PDM REV: X-005

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX $\pm .03$ .XXX $\pm .005$ ANGULAR $\pm 1.0^\circ$	
1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
6061-T6 Al	63 $\mu$ inch

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **AOS**

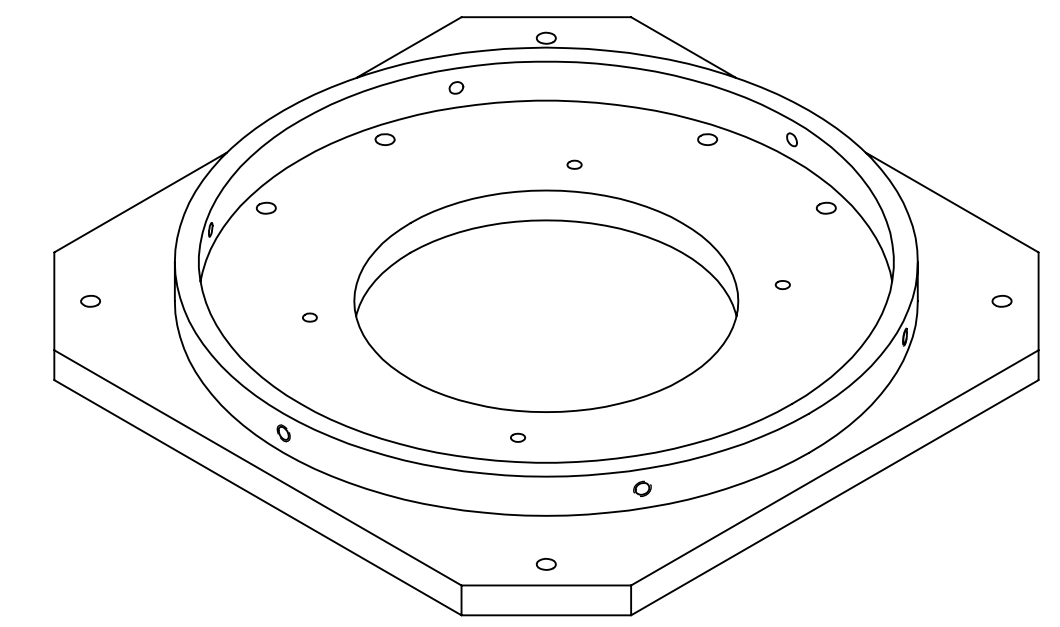
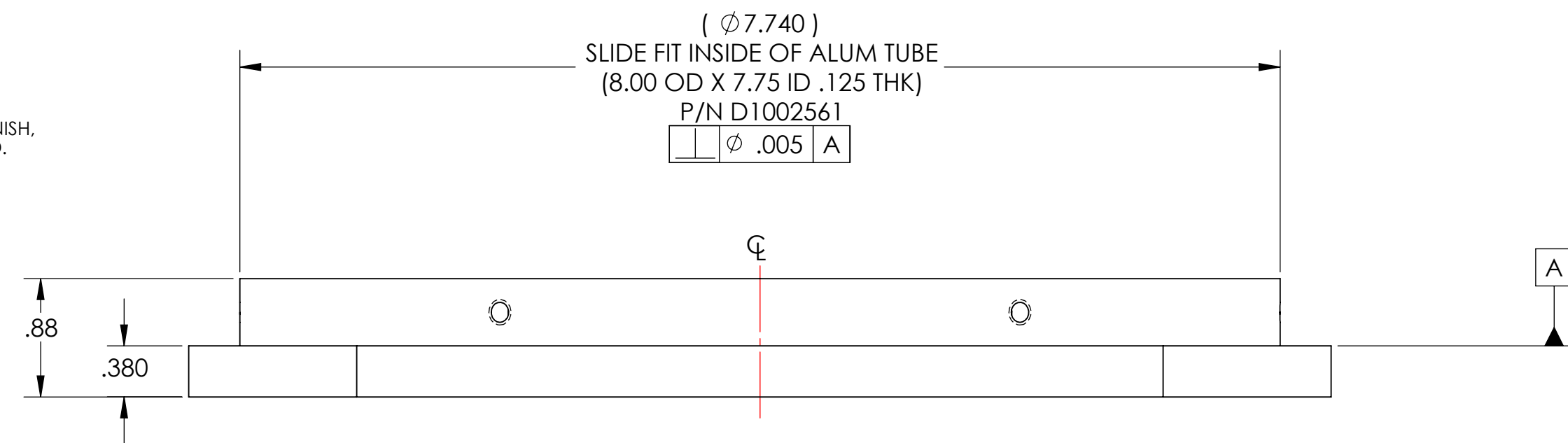
NEXT ASSY: **D1002582**

PART NAME				SLC UPPER TUBE	
DESIGNER	N.Nguyen	01 Jul 2010	SIZE	DWG. NO.	
DRAFTER	TQ. NGUYEN	19 Jul 2010	<b>B</b>	<b>D1002612</b>	
CHECKER	M. SMITH	01 NOV 2010	SCALE:	1:2	PROJECTION:
APPROVAL	D. COYNE	10 NOV 2010	SHEET	1 OF 1	
REV.	v1				

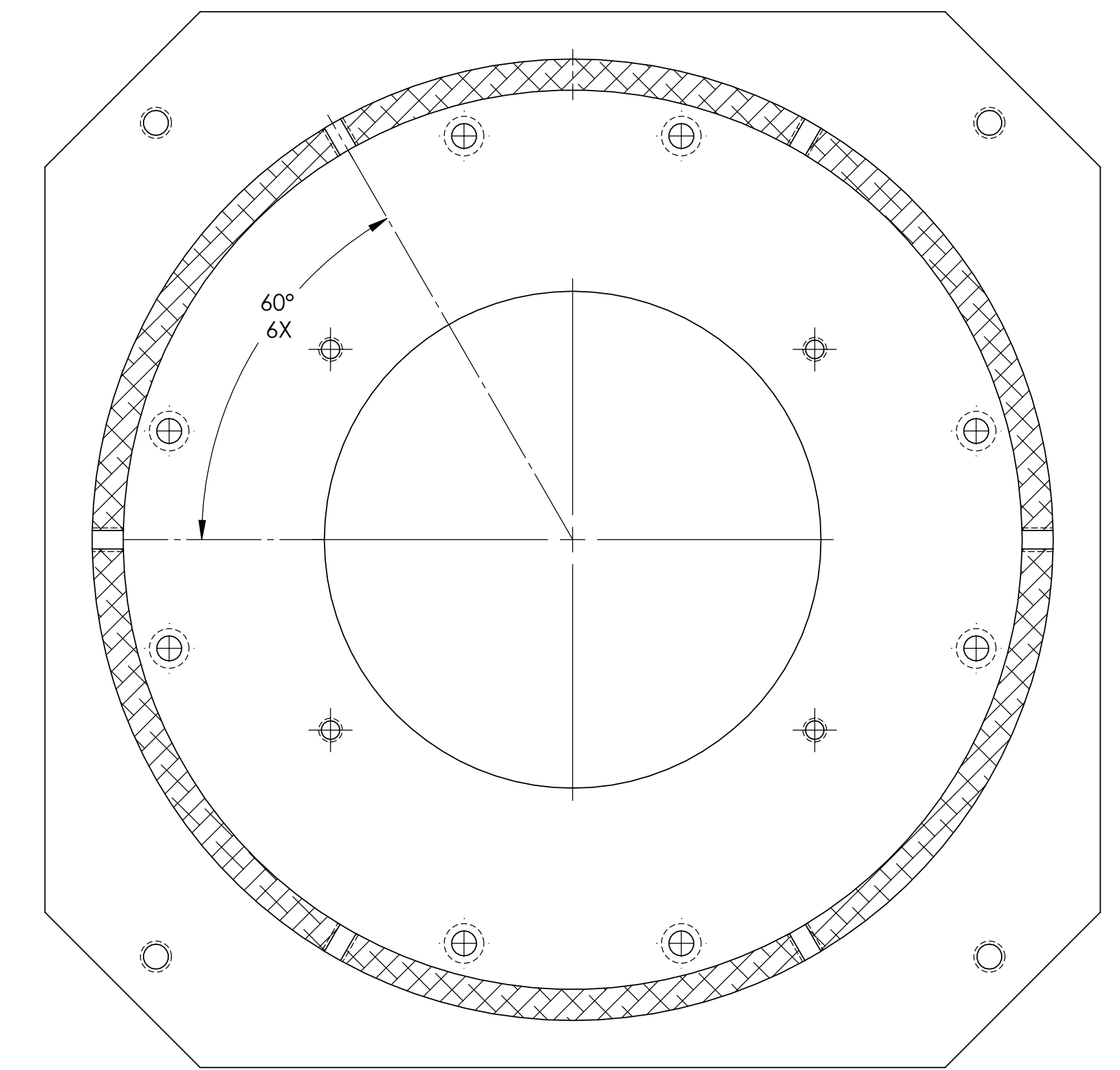
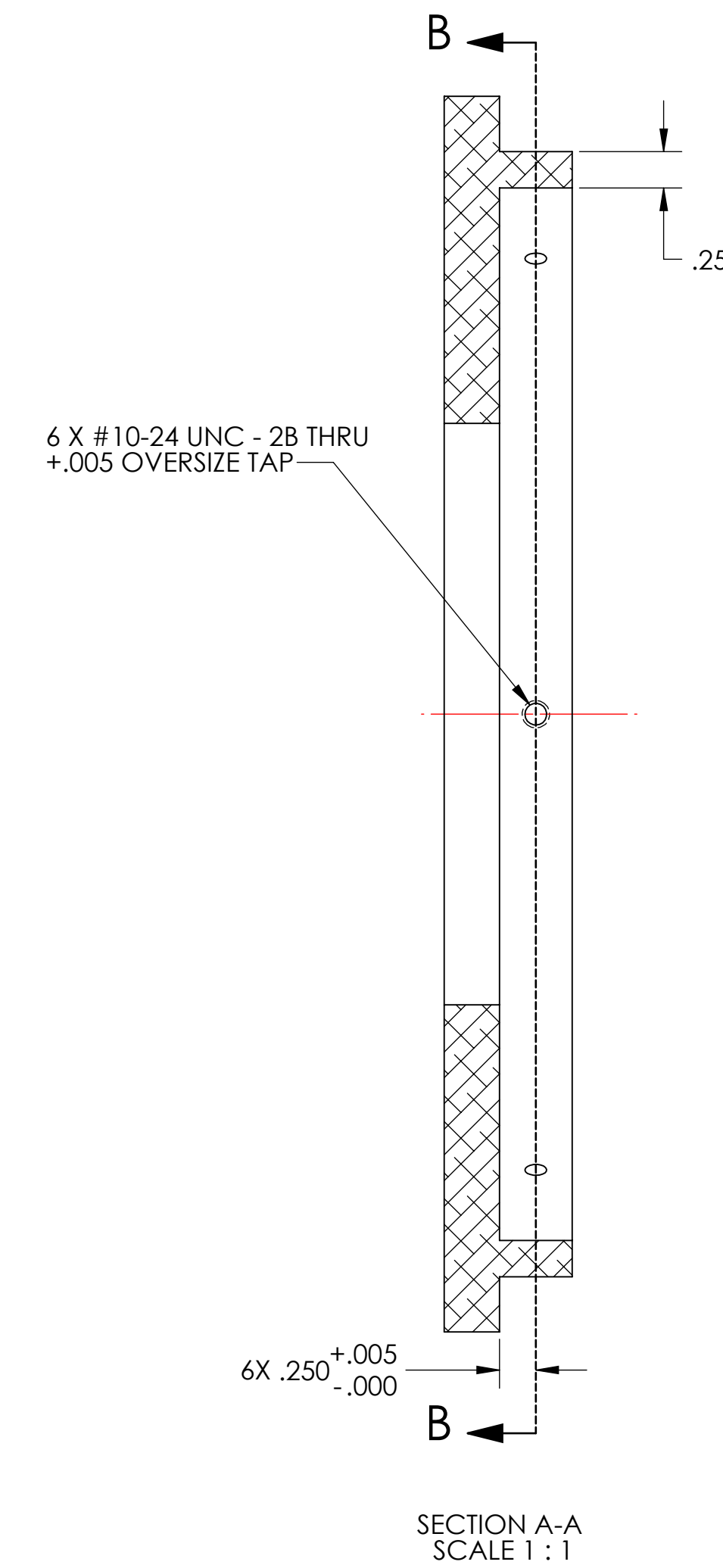
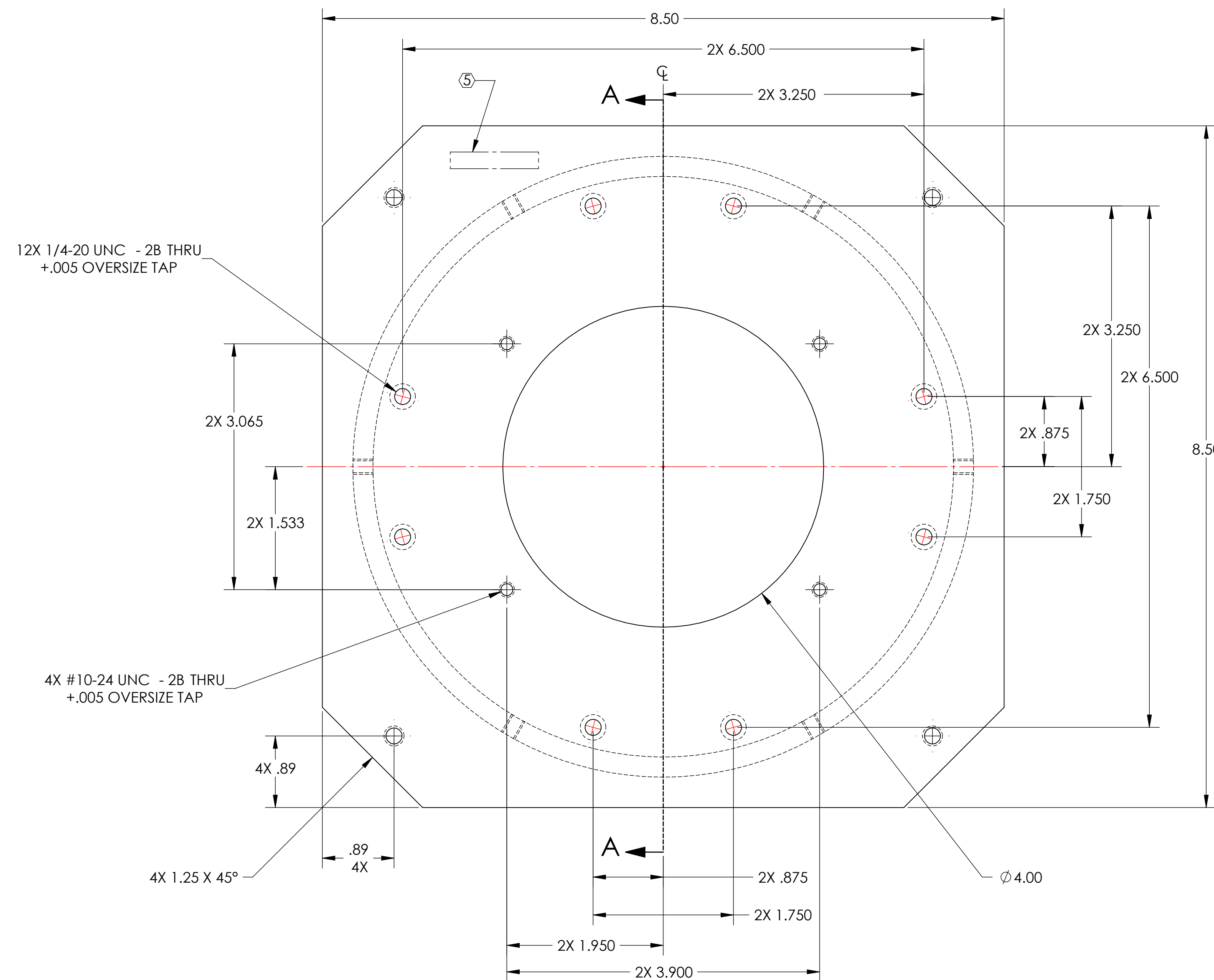
NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	03 JUN 2010	E1000285	



NO SCALE  
 FOR REFERENCE ONLY



DIMENSIONS ARE IN INCHES		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME			
TOLERANCES: .XX ± .01 .XXX ± .005		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS		SLC DAMPING TUBE LOWER PLATE	
ANGULAR ± 1.0°		MATERIAL 6061-T6 Al		FINISH 63 μinch		NEXT ASSY D1002563		DESIGNER N.Nguyen	
						DATE 01 Jun 2010		SIZE D	
						DWG. NO. D1002617		REV. v1	
						CHECKER M. SMITH		DATE 01 NOV 2010	
						APPROVAL D. COYNE		SCALE: 1:1	
						PROJECTION:		SHEET 1 OF 1	

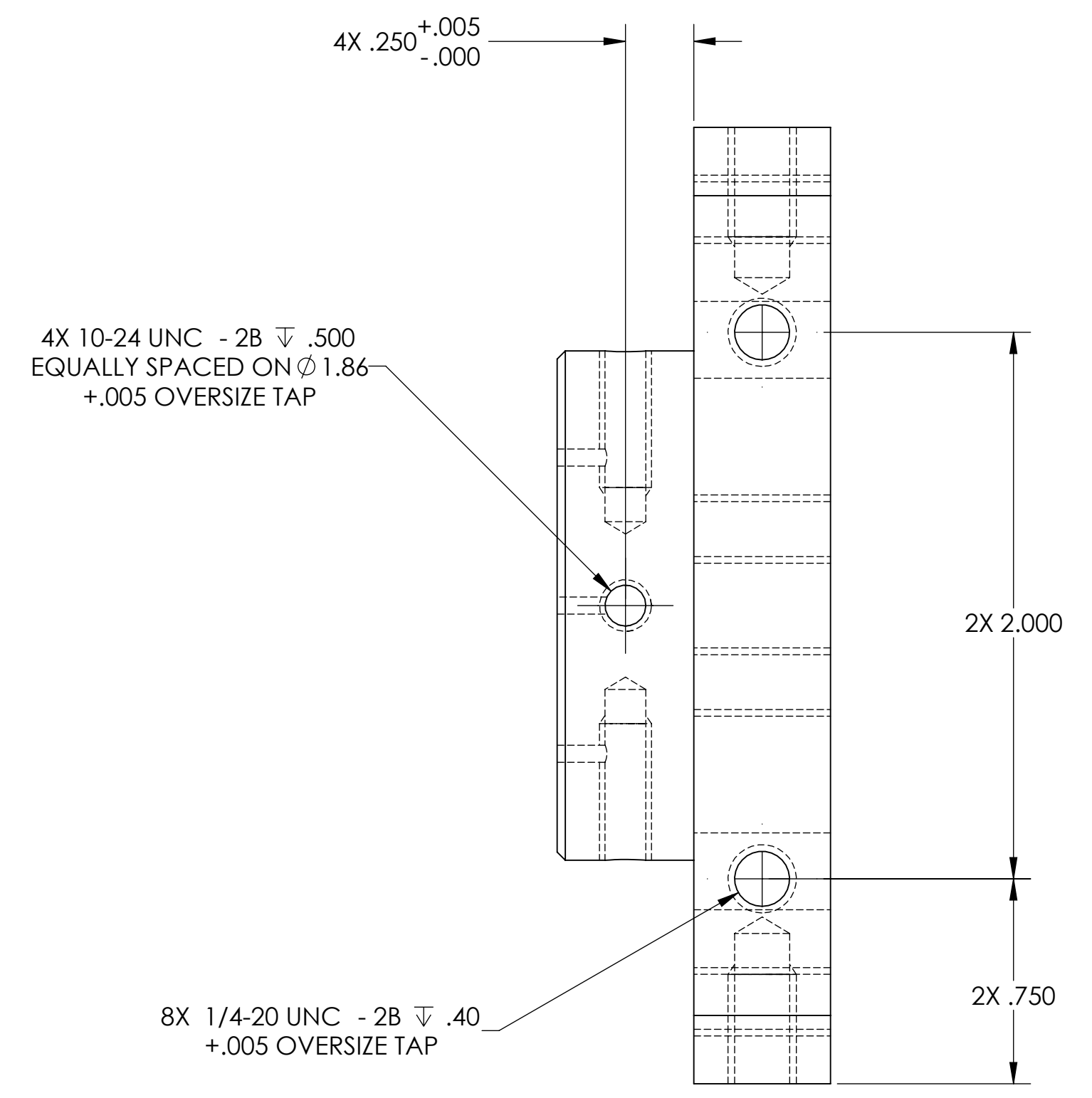
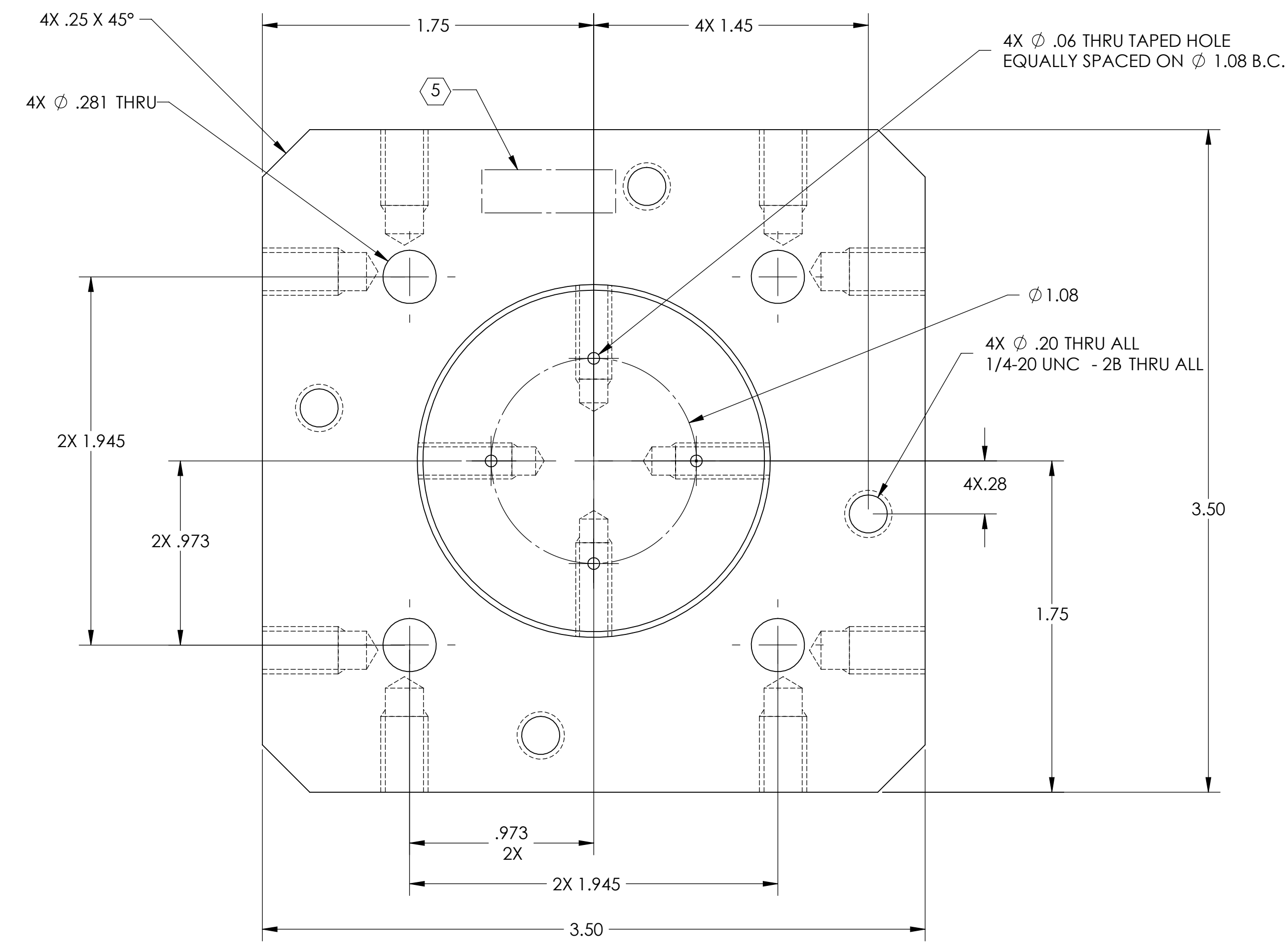
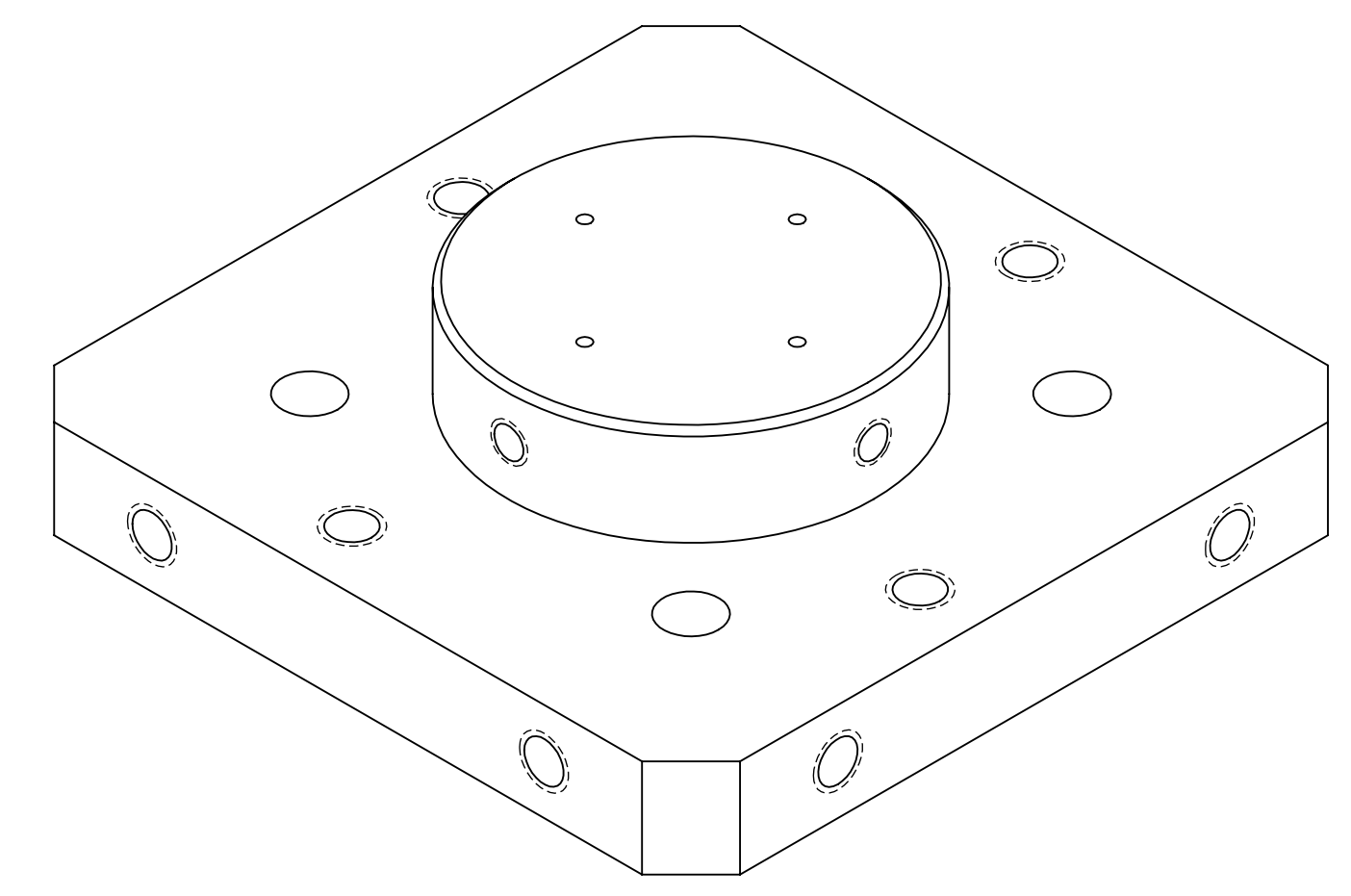
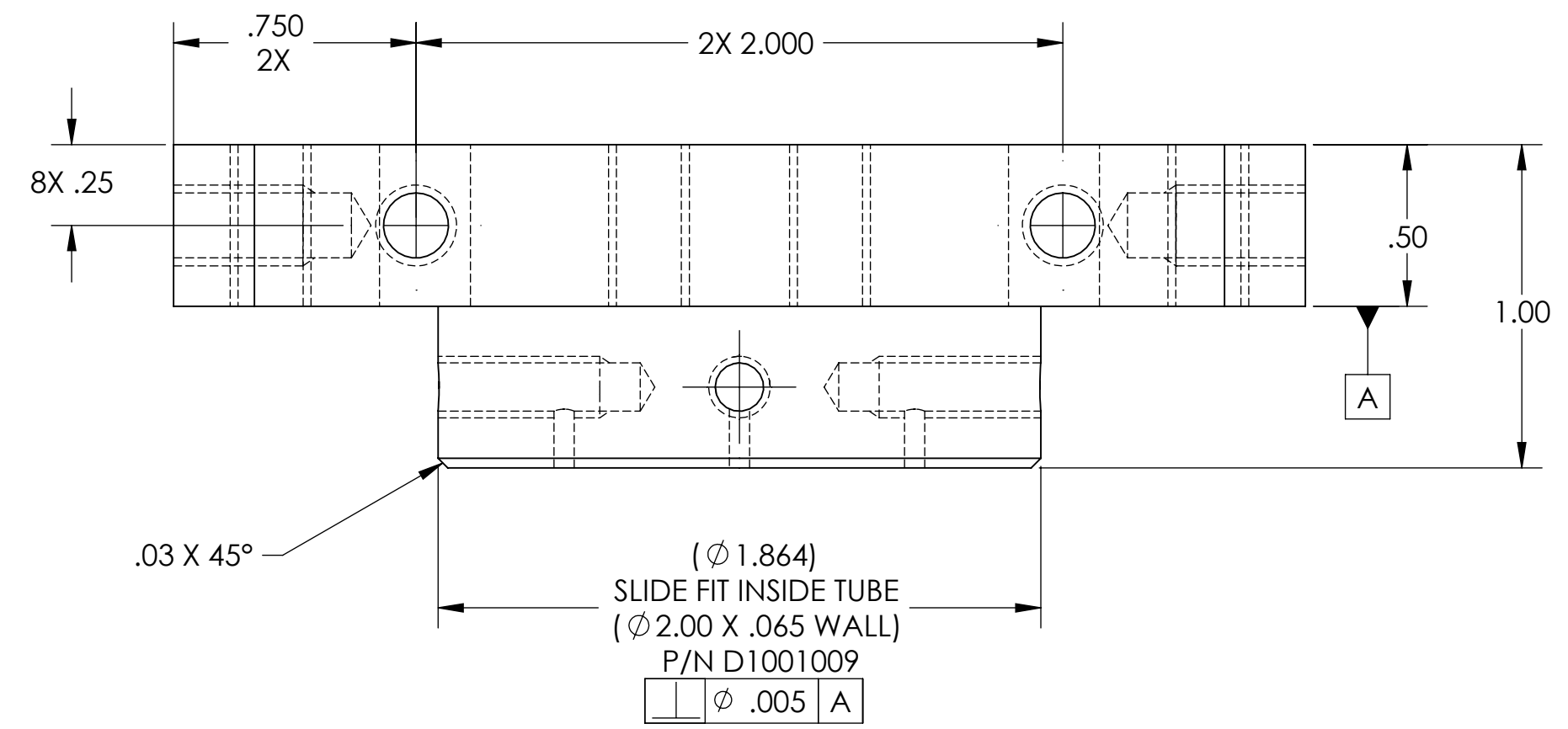
D:\002617\_Audi\GO\_AOS\_SLC Damping Tube Lower Plate\_PART PDM REV: X-007\_DRAWING PDM REV: X-006



NOTES CONTINUED:  
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

6. APPROXIMATE WEIGHT = .314 LB.  
 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.  
 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.  
 9. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO. REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	10 OCT 2010	E1000285	

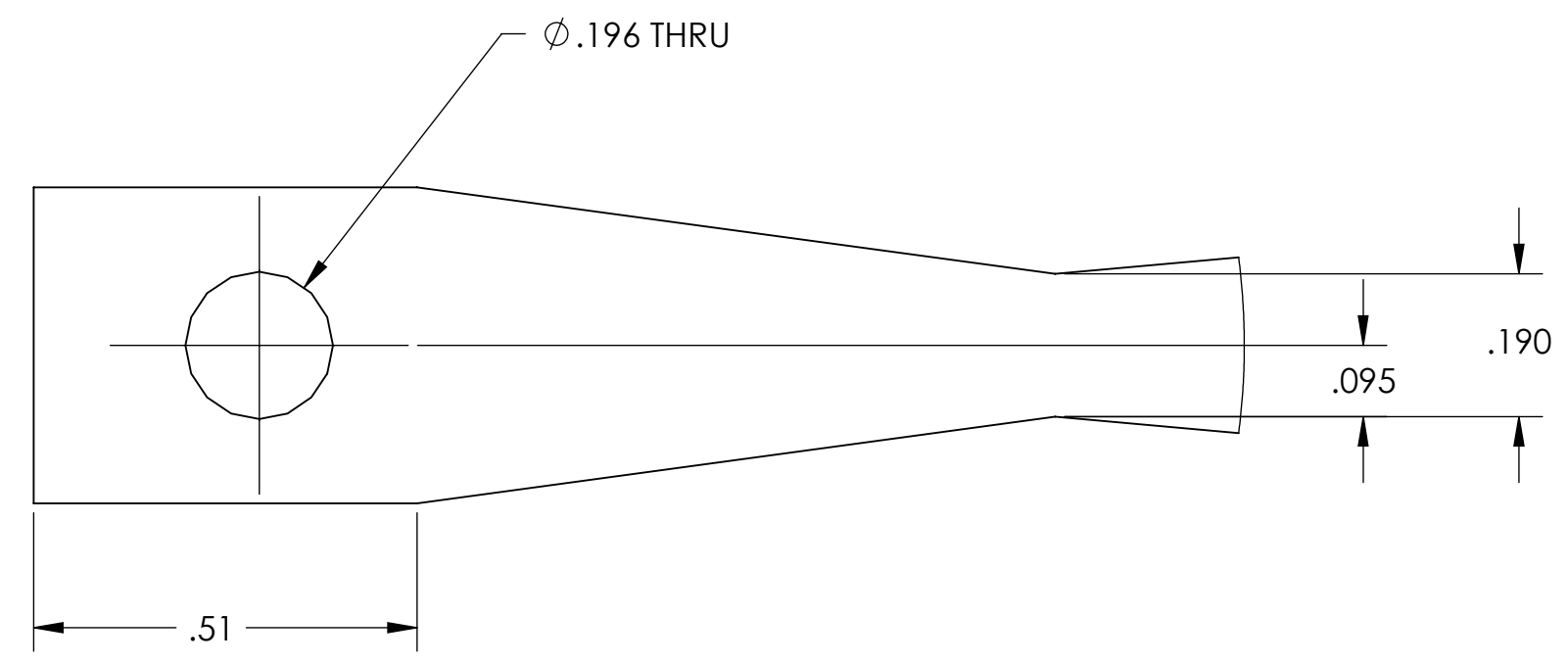
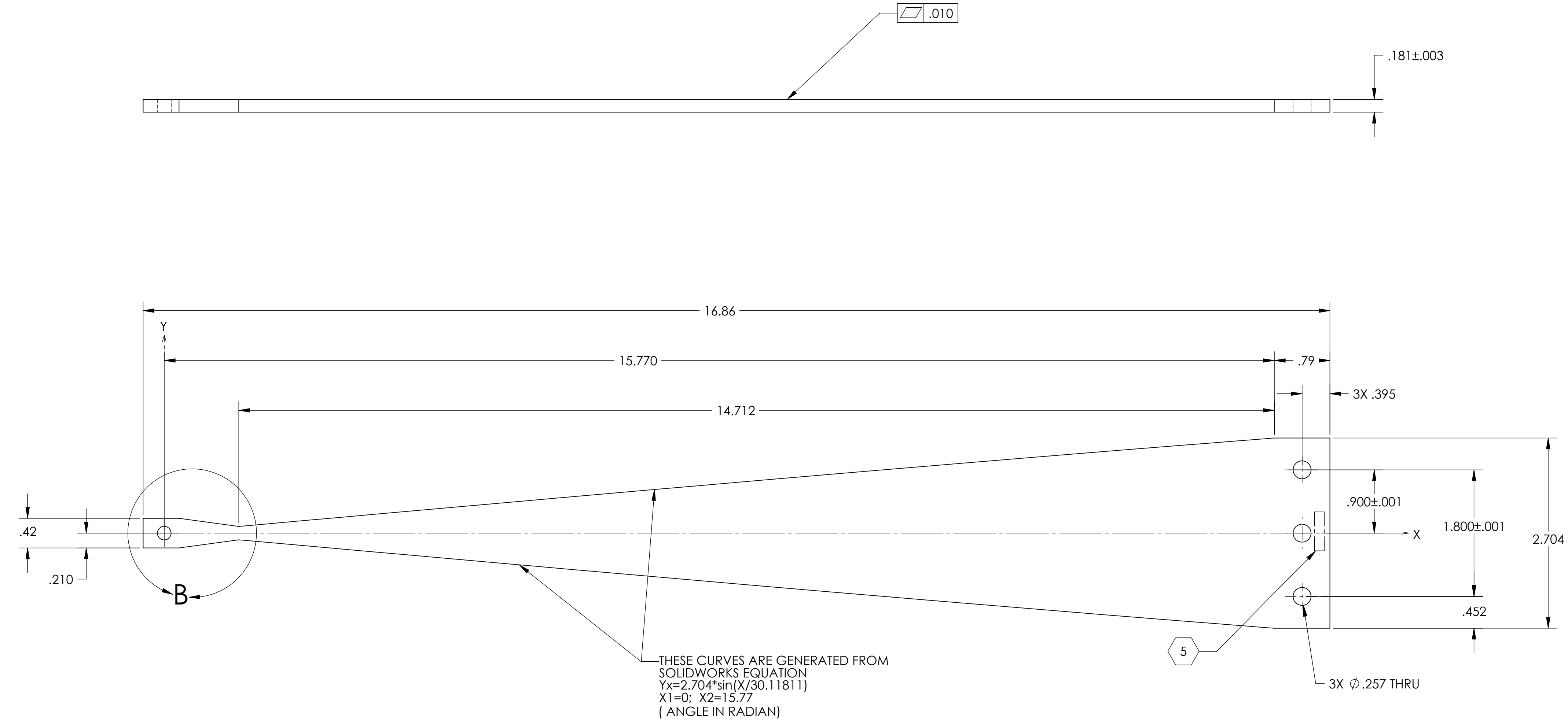


DIMENSIONS ARE IN INCHES		TOLERANCES: .XX ± .01 .XXX ± .005		ANGULAR ± 1.0°		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		MATERIAL 6061-T6 Al		FINISH 63 μinch		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME SLC TUBE LOWER CONNECTOR PLATE	
						SYSTEM ADVANCED LIGO		SUB-SYSTEM AOS		NEXT ASSY D1001007		DESIGNER N.Nguyen		DATE 01 Jun 2010	
						CHECKER M. SMITH		DATE 01 NOV 2010		APPROVAL D. COYNE		DATE 10 NOV 2010		SCALE: 1:1	
						DWG. NO. D1002618		REV. v1		SHEET 1 OF 1		PROJECTION:		SHEET 1 OF 1	

D:\002618\_Asl\GO\_AOS\_SLC Tube Lower Connector Plate - PART PDM REV: X-003 - DRAWING PDM REV: X-008

- NOTES CONTINUED:**
- 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED. EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX
  - 6. PART TO BE HEAT TREATED AND PLATED IN ACCORDANCE WITH LIGO SPECIFICATION E0900023-V10.
  - 7. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.
  - 8. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	

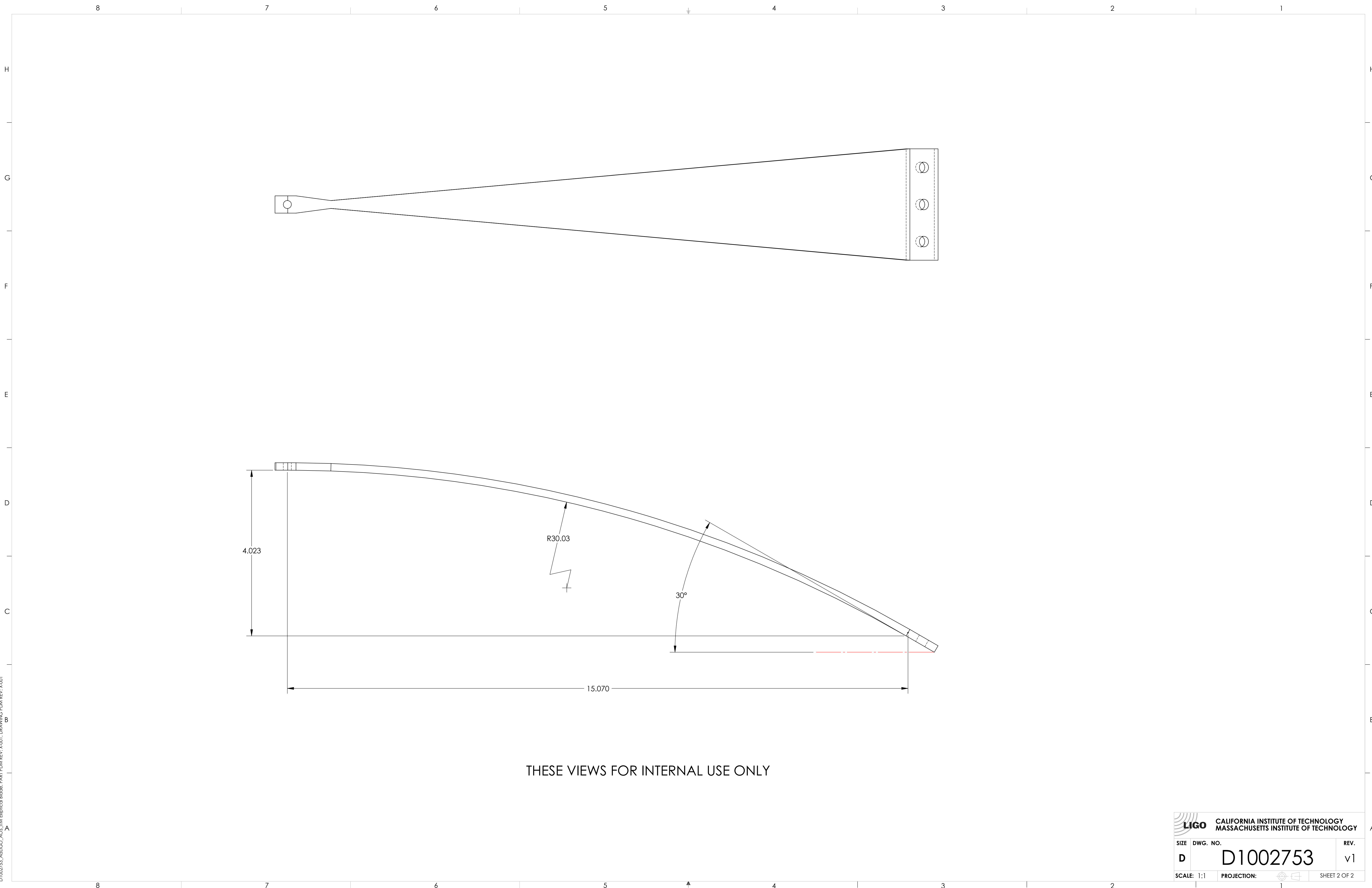


**DETAIL B**  
**SCALE 4 : 1**


NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 1.0°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>ITM Elliptical Blade</b>	
<b>MATERIAL</b> MARAGING STEEL C250		<b>FINISH</b> 63 μinch		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NEXT ASSY</b> D100xxxx				<b>DESIGNER</b> N.Nguyen		<b>DATE</b> 01 Jun 2010	
				<b>DRAFTER</b> M.RUIZ		<b>SIZE</b> D	
				<b>CHECKER</b>		<b>DWG. NO.</b> <b>D1002753</b>	
				<b>APPROVAL</b>		<b>REV.</b> v1	
				<b>SCALE:</b> 1:1		<b>PROJECTION:</b>	
						<b>SHEET 1 OF 2</b>	

D1002753\_AudiGO\_AOS\_TIM\_Elliptical Blade\_PART\_PDM\_REV: X-001\_DRAWING\_PDM\_REV: X-001





THESE VIEWS FOR INTERNAL USE ONLY

 <b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b>		
SIZE	DWG. NO.	REV.
D	D1002753	v1
SCALE: 1:1	PROJECTION:	SHEET 2 OF 2

D1002753\_AudiGO\_ACS\_TIM\_Elliptical Blade\_PART\_PDM\_REV\_X-001\_DRAWING\_PDM\_REV\_X-001

**NOTES CONTINUED:**

5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR "TYPE" IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. USE MINIMUM 0.12" HIGH CHARACTERS, UNLESS THE SIZE OF THE PART DICTATES SMALLER CHARACTERS. A VIBRATORY TOOL MAY BE USED.  
EXAMPLE: DXXXXXX-VY, TYPE-XX, S/N XXX

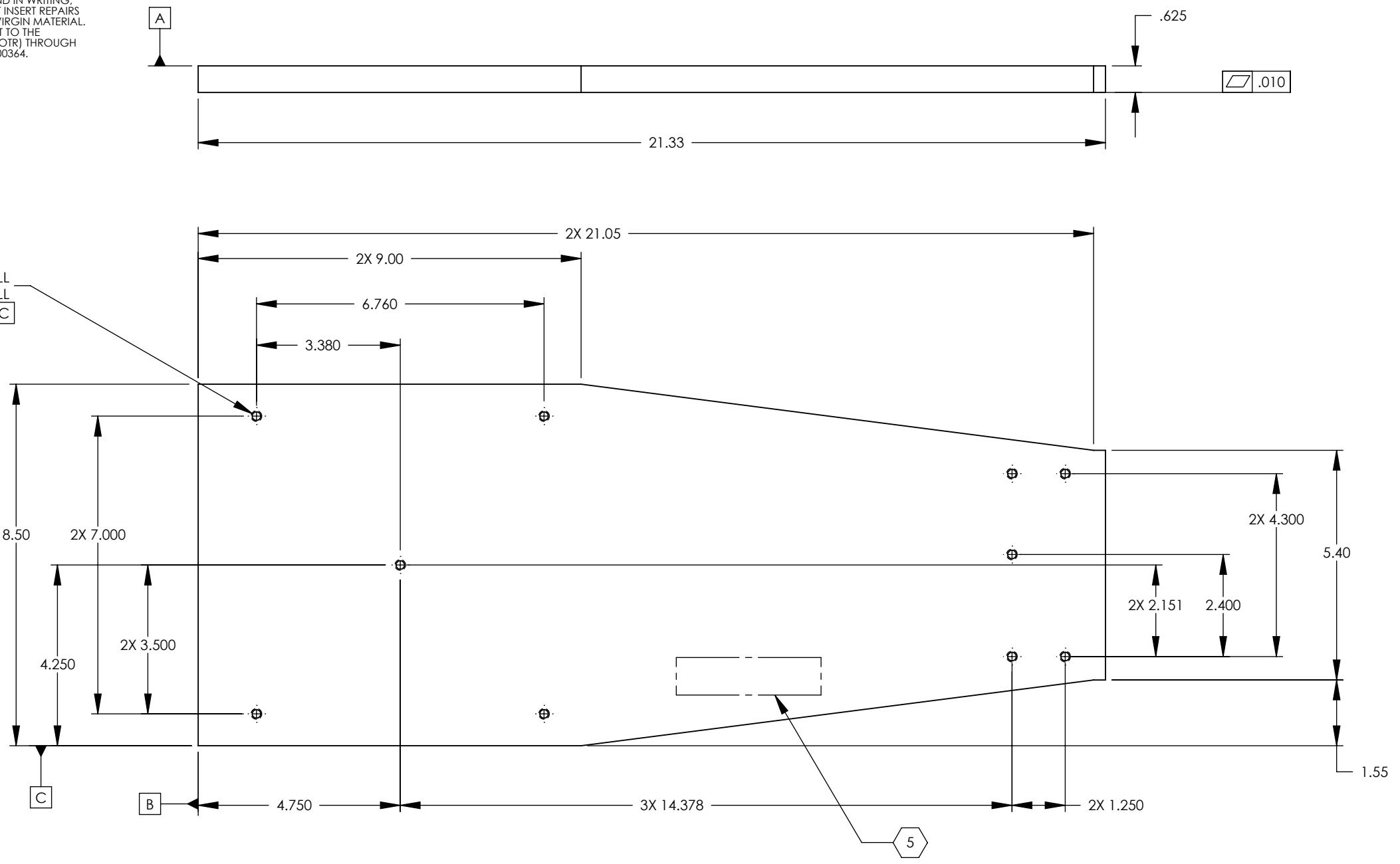
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH, USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

8. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NOT WELD REPAIRS OR PLUGS UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.

9. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-



10X Ø .201 THRU ALL  
1/4-20 UNC - 2B THRU ALL  
⊕ Ø .010 A B C

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX ± .01 .XXX ± .010 ANGULAR ± .5°				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		ITM ELLIPTICAL INTERFACE MOUNTING PLATE	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
304 SSSL		63 μinch		ADVANCED LIGO		AOS	
NEXT ASSY				DESIGNER		DATE	
D1003238				M.RUIZ		03 DEC 2010	
APPROVAL				DRAFTER		DATE	
				M.RUIZ		12 NOV 2010	
SCALE: 1:3				PROJECTION:		SHEET 1 OF 1	

D1002756\_AdlIGO\_AOS\_ITM Elliptical Interface Mounting Plate, PART PDM REV: X-001, DRAWING PDM REV: X-002

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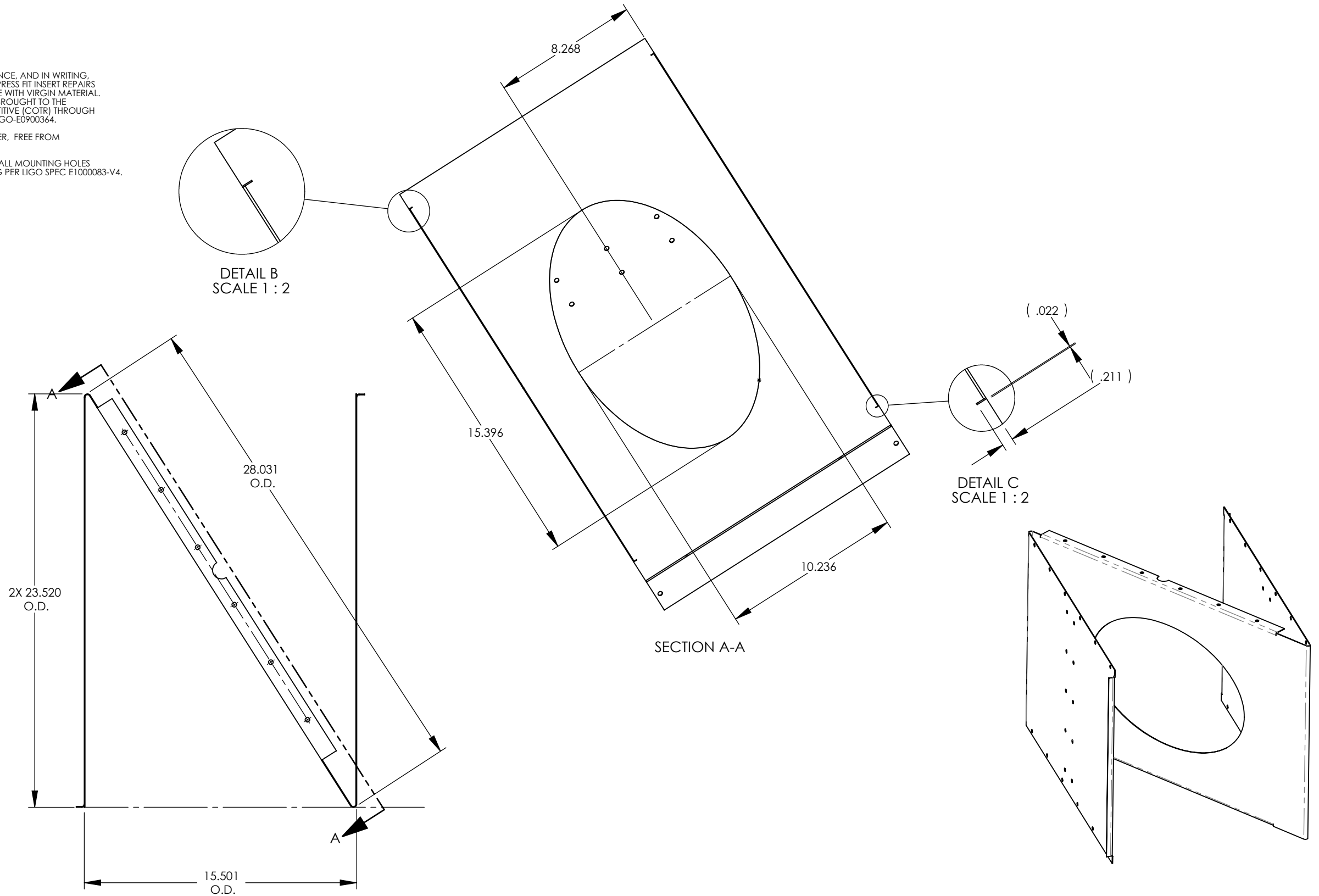
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NOTES CONTINUED:

- 5. MACHINE PART NUMBER, REVISION, SERIAL NUMBER, .020 DEEP WITH MINIMUM CHARACTER HEIGHT .156 APPROXIMATELY WHERE SHOWN. SERIAL NUMBER WILL START AT 001 AND PROCEED CONSECUTIVELY. EXAMPLE: D100XXXX-V1 S/N 001
- 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 7. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS OR PLUGS) UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
- 8. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.
- 9. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES & GOUGES.
- 10. PART WILL BE PORCELAIN COATED AFTER FABRICATION. ALL MOUNTING HOLES WILL BE MASKED ( $\varnothing 0.63$ ) PRIOR TO PORCELAIN COATING PER LIGO SPEC E1000083-V4.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-



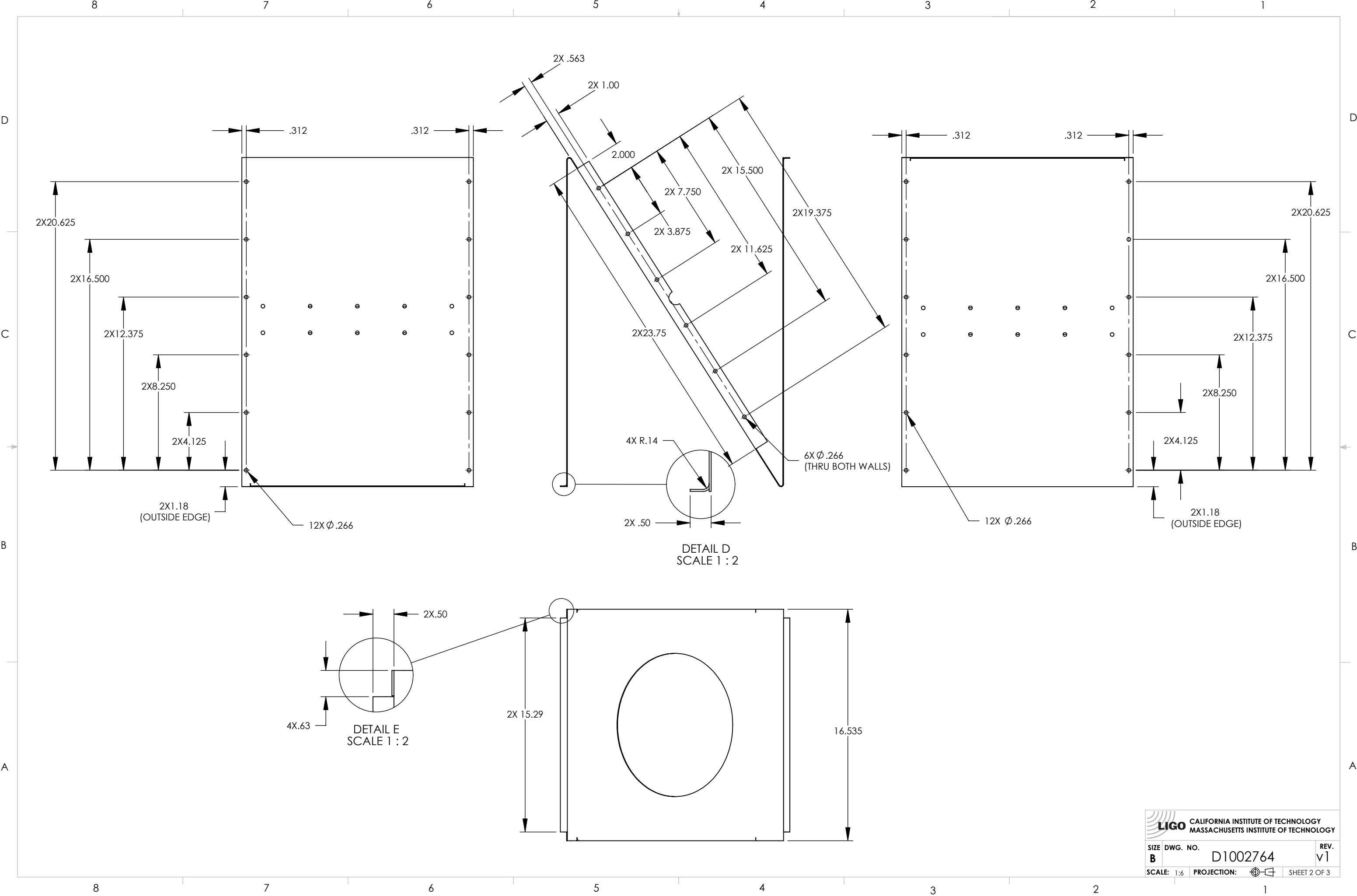
D1002764\_AdlIGO\_AOS\_ITM Elliptical Baffle Skin, PART PDM REV: X-020, DRAWING PDM REV: X-022

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN	
TOLERANCES:	
.XX	$\pm .01$
.XXX	$\pm .015$
ANGULAR $\pm 1.0^\circ$	
1. INTERPRET DRAWING PER ASME Y14.5-1994.	
2. REMOVE ALL SHARP EDGES, R.02 MIN.	
3. DO NOT SCALE FROM DRAWING.	
4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.	
MATERIAL	FINISH
A424 TYPE I, 18GA, SSSL	SEE NOTE 7

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME	
	ITM ELLIPTICAL BAFFLE SKIN	
SYSTEM	SUB-SYSTEM	DESIGNER
		M.RUIZ
		06 DEC 2010
		DRAFTER
		M.RUIZ
		02 NOV 2010
		CHECKER
		APPROVAL
NEXT ASSY	D1002750	

SIZE	DWG. NO.	REV.
B	D1002764	v1
SCALE: 1:6	PROJECTION:	SHEET 1 OF 3

D1002764\_AcLIGO\_AOS\_ITM Elliptical Baffle Skin, PART PDM REV: X-020, DRAWING PDM REV: X-022



**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

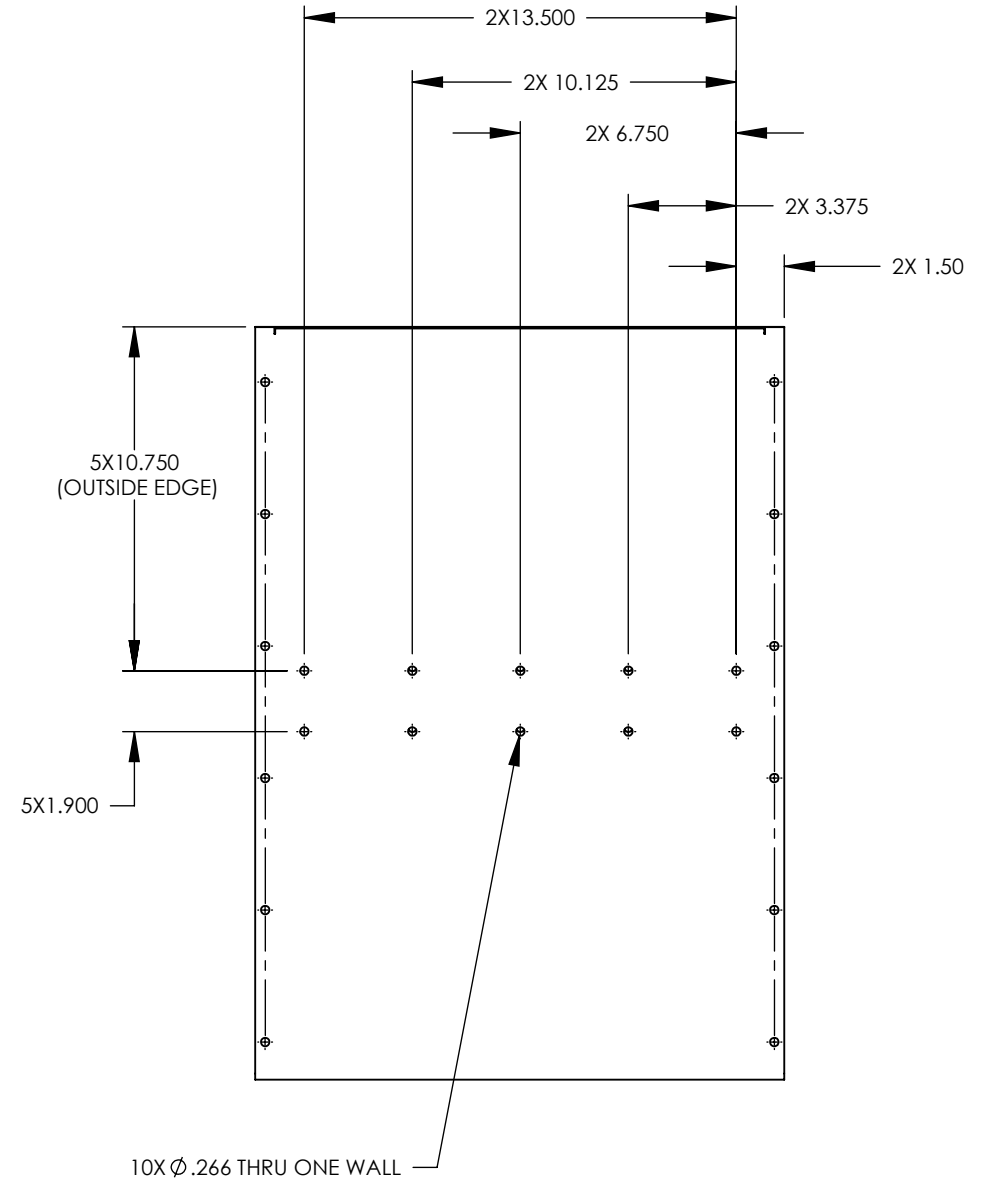
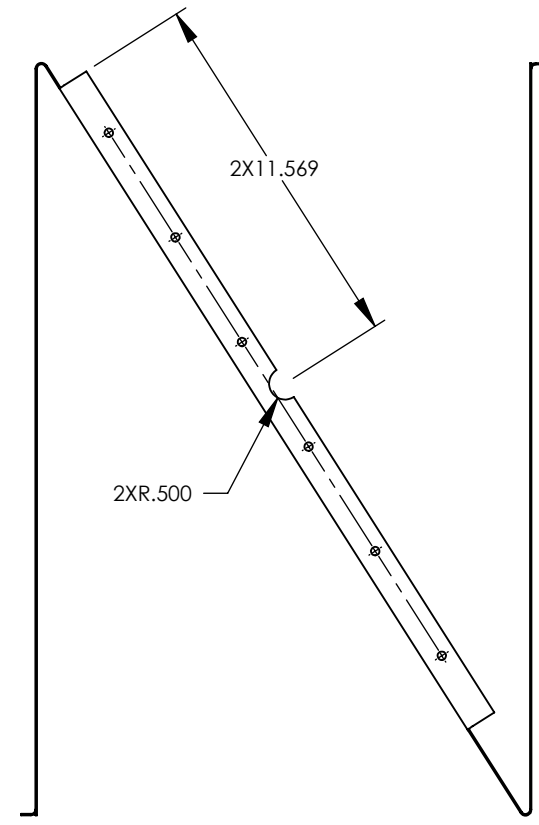
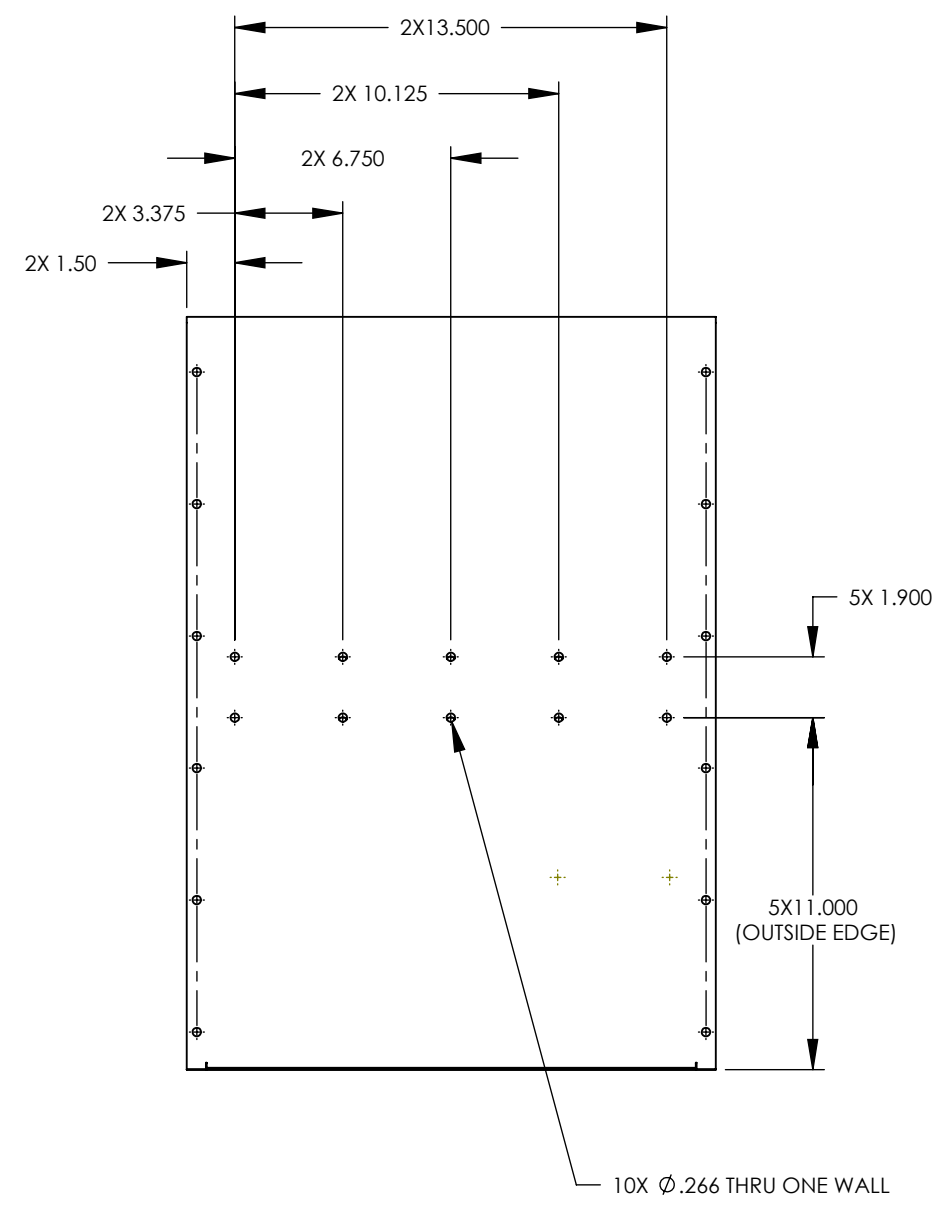
SIZE <b>B</b>	DWG. NO. D1002764	REV. v1
SCALE: 1:6		PROJECTION:
SHEET 2 OF 3		

D1002764\_AcLIGO\_AOS\_ITM Elliptical Baffle Skin, PART PDM REV: X-020, DRAWING PDM REV: X-022

8 7 6 5 4 3 2 1

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C  
B  
A

D  
C  
B  
A



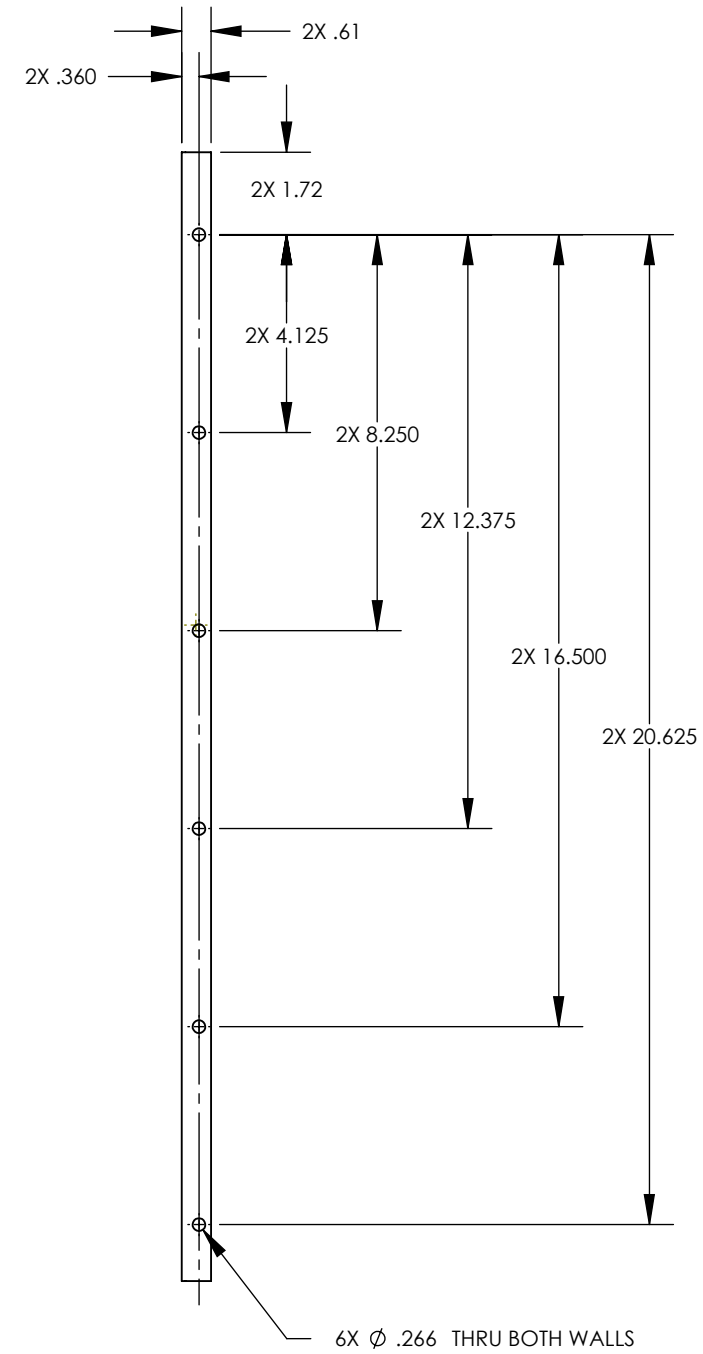
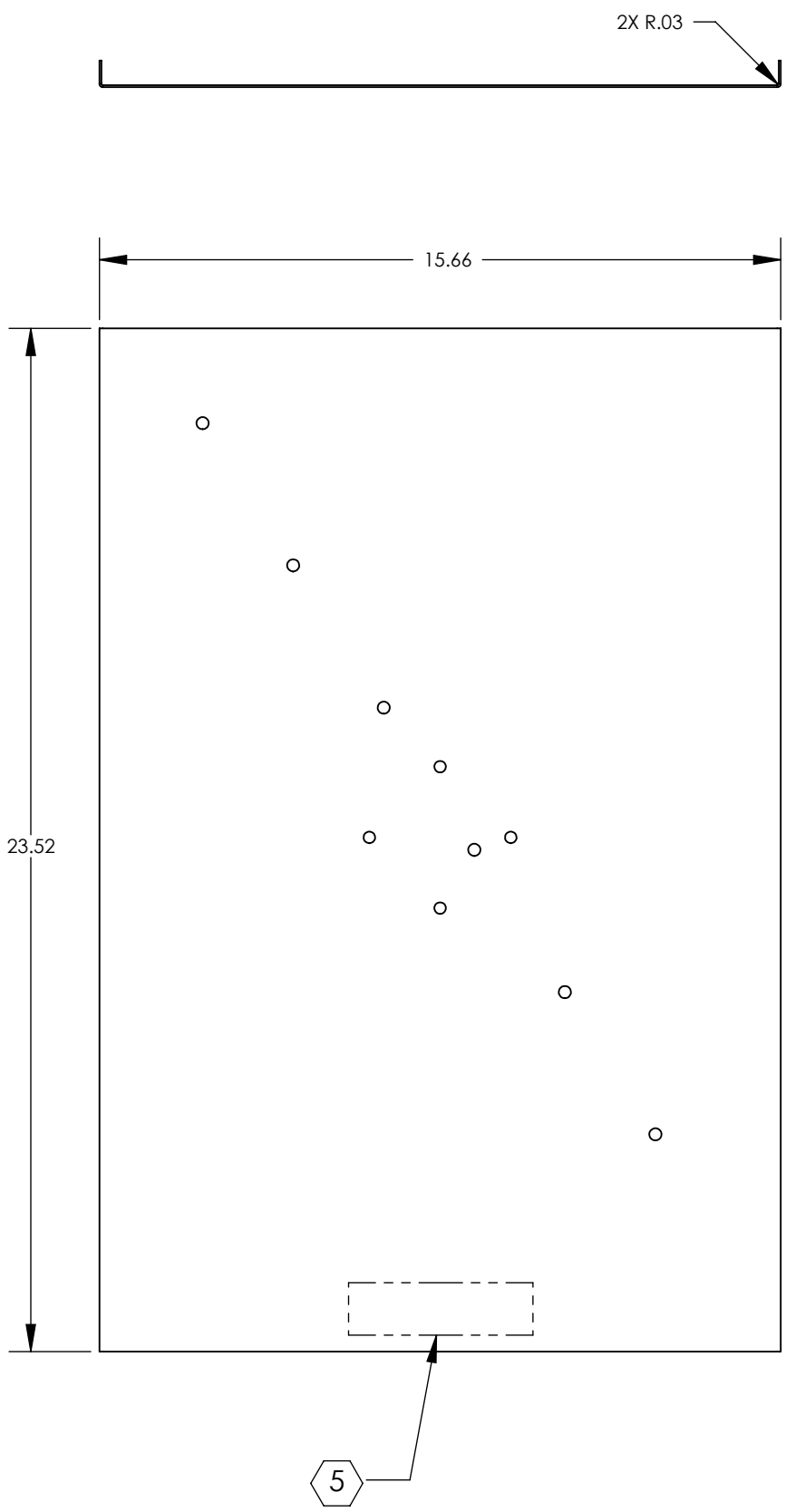
8 7 6 5 4 3 2 1

**LIGO** CALIFORNIA INSTITUTE OF TECHNOLOGY  
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIZE	DWG. NO.	REV.
B	D1002764	v1
SCALE: 1:6		PROJECTION:
		SHEET 3 OF 3

- NOTES CONTINUED:**
- 5. MACHINE PART NUMBER, REVISION, SERIAL NUMBER, .020 DEEP WITH MINIMUM CHARACTER HEIGHT .156 APPROXIMATELY WHERE SHOWN. SERIAL NUMBER WILL START AT 001 AND PROCEED CONSECUTIVELY. EXAMPLE: D100XXXX-V1  
S/N 001
  - 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  - 7. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS OR PLUGS) UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
  - 8. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.
  - 9. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER. FREE FROM SCRATCHES & GOUGES.
  - 10. PART WILL BE PORCELAIN COATED AFTER FABRICATION. ALL MOUNTING HOLES WILL BE MASKED ( $\varnothing 0.63$ ) PRIOR TO PORCELAIN COATING PER LIGO SPEC E1000083-V4.

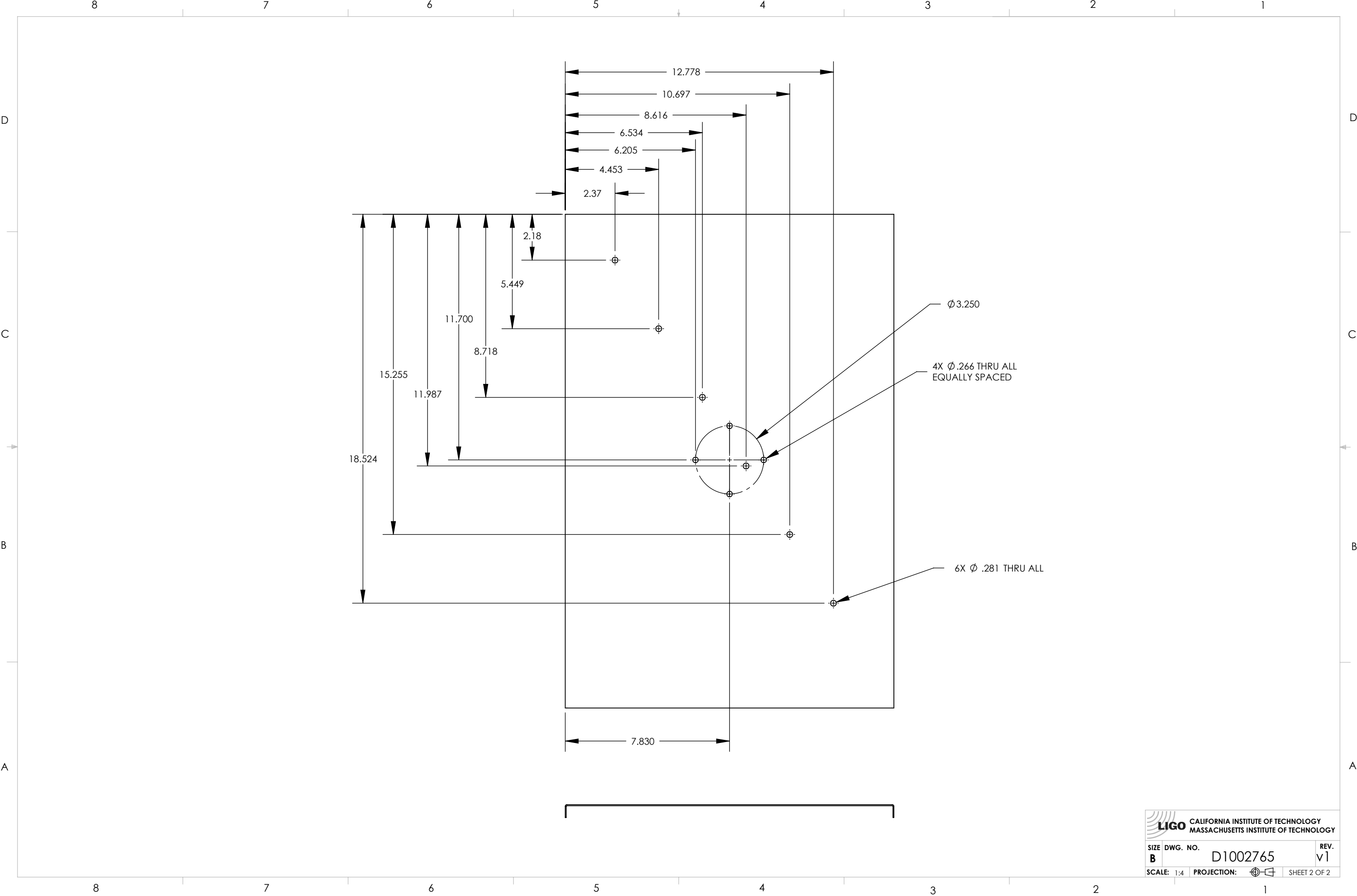
REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-





D1002765\_AdlIGO\_AOS\_ITM Elliptical Baffle Upper Cap Skin, PART PDM REV: X-020, DRAWING PDM REV: X-019

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN		1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		ADVANCED LIGO		ITM Elliptical Baffle Upper Cap Skin	
TOLERANCES: .XX ± .01 .XXX ± .015		MATERIAL A424 TYPE I, 18GA, SSTL		SUB-SYSTEM AOS		DESIGNER DRAFTER CHECKER APPROVAL	
ANGULAR ± .5°		FINISH SEE NOTE 7		NEXT ASSY D1002750		SIZE DWG. NO. B D1002765	
						REV. v1	
						SCALE: 1:4 PROJECTION: SHEET 1 OF 2	

D1002765\_AdLIGO\_AOS\_ITM Elliptical Baffle Upper Cap Skin, PART PDM REV: X-020, DRAWING PDM REV: X-019

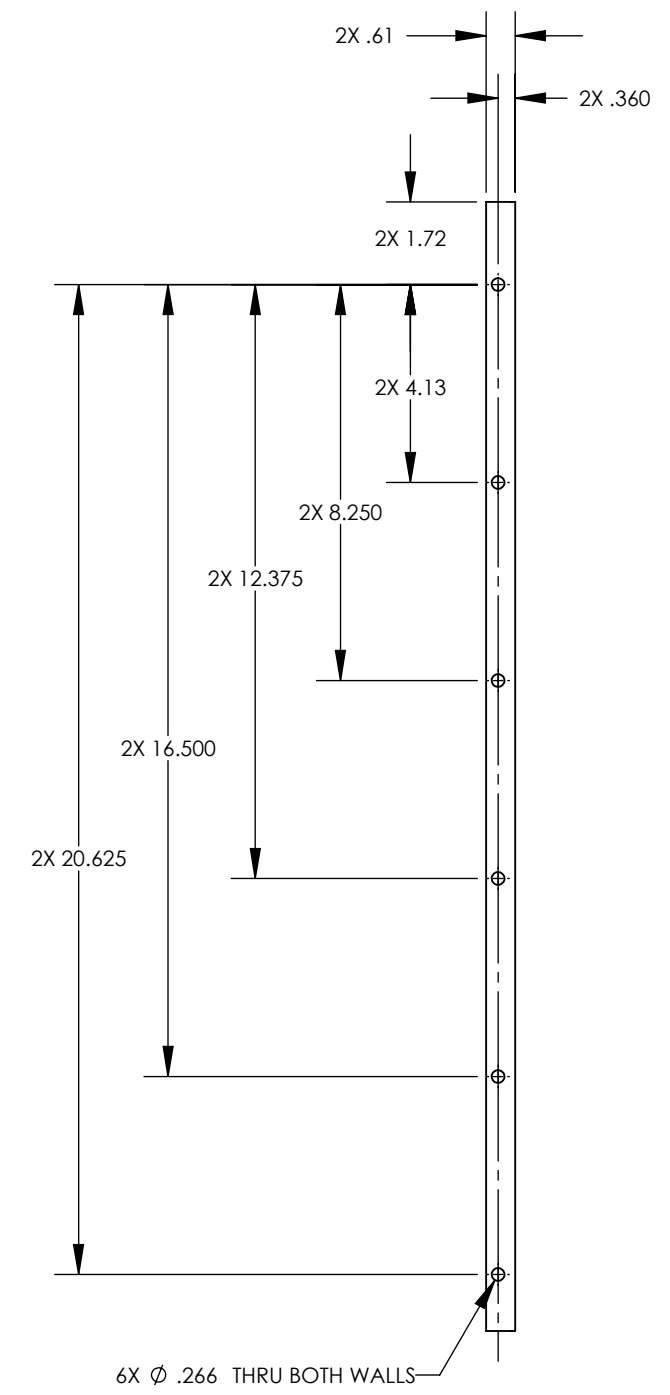
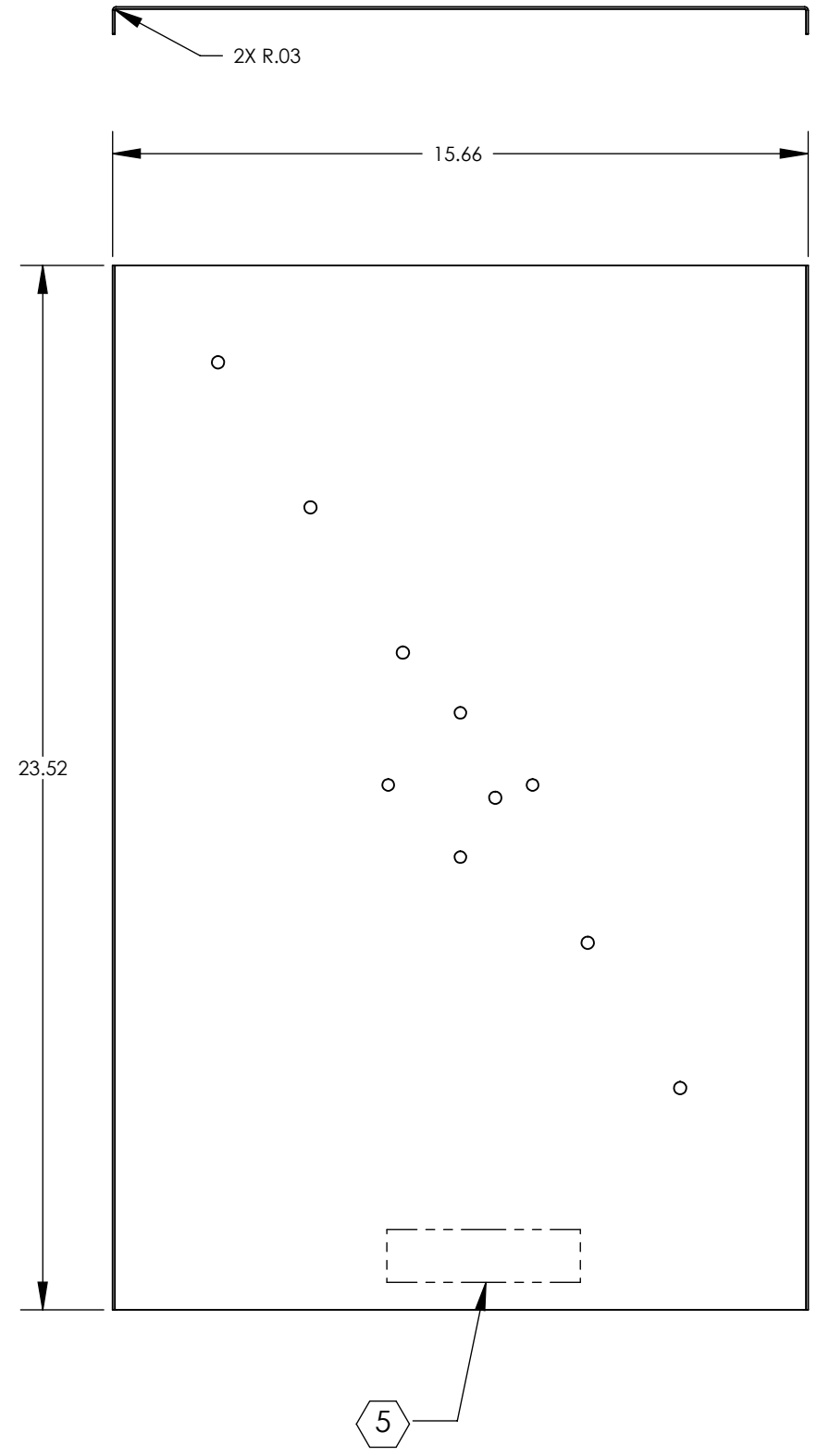


 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE <b>B</b>	DWG. NO. D1002765
SCALE: 1:4	PROJECTION:  SHEET 2 OF 2
REV. v1	

D1002766\_AdlIGO\_AOS\_ITM Elliptical Baffle Lower Cap Skin, PART PDM REV: X-014, DRAWING-PDM REV: X-015

- NOTES CONTINUED:**
5. MACHINE PART NUMBER, REVISION, SERIAL NUMBER, .020 DEEP WITH MINIMUM CHARACTER HEIGHT .156 APPROXIMATELY WHERE SHOWN. SERIAL NUMBER WILL START AT 001 AND PROCEED CONSECUTIVELY. EXAMPLE: D100XXXX-V1  
S/N 001
  6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
  7. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS OR PLUGS) UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
  8. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.
  9. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES & GOUGES.
  10. PART WILL BE PORCELAIN COATED AFTER FABRICATION. ALL MOUNTING HOLES WILL BE MASKED ( $\varnothing 0.63$ ) PRIOR TO PORCELAIN COATING PER LIGO SPEC E1000083-V4.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN TOLERANCES: .XX $\pm .02$ .XXX $\pm .010$ ANGULAR $\pm .5^\circ$				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>ITM Elliptical Baffle Lower Cap Skin</b>	
<b>MATERIAL</b> A424 TYPE I, 18GA, SSSL		<b>FINISH</b> See Note 7		<b>SYSTEM</b> ADVANCED LIGO		<b>SUB-SYSTEM</b> AOS	
<b>NEXT ASSY</b> D1002750				<b>DESIGNER</b> M.RUIZ		<b>DATE</b> 06 Dec 2010	
				<b>DRAFTER</b> M.RUIZ		<b>DATE</b> 09 NOV 2010	
				<b>CHECKER</b> (blank)		<b>SIZE DWG. NO.</b> <b>B D1002766</b>	
				<b>APPROVAL</b> (blank)		<b>REV.</b> v1	
				<b>SCALE:</b> 1:4		<b>PROJECTION:</b>	
						<b>SHEET 1 OF 2</b>	





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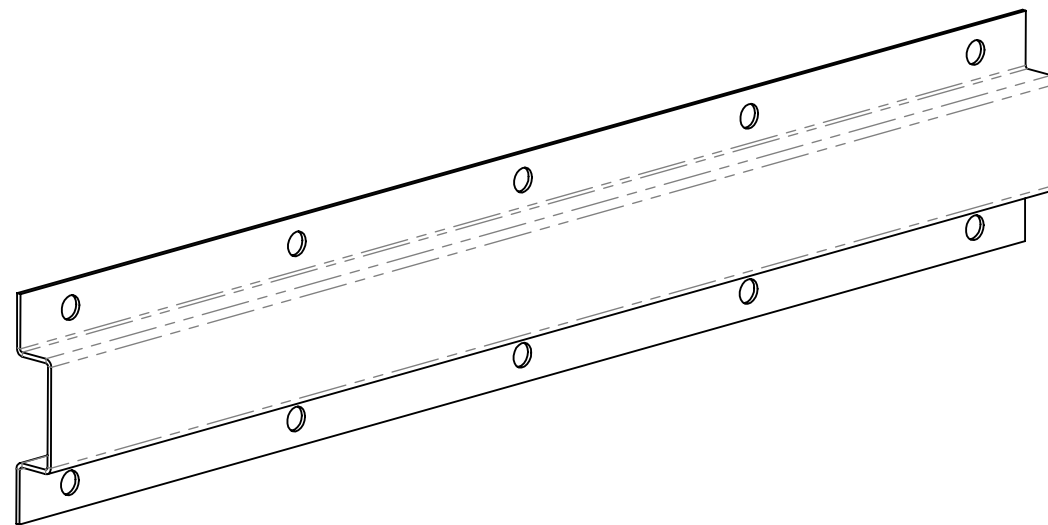
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NOTES CONTINUED:

- 5. MACHINE PART NUMBER, REVISION, SERIAL NUMBER, .020 DEEP WITH MINIMUM CHARACTER HEIGHT .156 APPROXIMATELY WHERE SHOWN. SERIAL NUMBER WILL START AT 001 AND PROCEED CONSECUTIVELY. EXAMPLE: D100XXXX-V1 S/N 001
- 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.
- 7. ALL MATERIAL IS TO BE VIRGIN MATERIAL (i.e. NO WELD REPAIRS OR PLUGS) UNLESS APPROVED IN ADVANCE IN WRITING BY LIGO, REFER TO LIGO-E0900364.
- 8. NO REPAIRS SHALL BE MADE UNLESS APPROVED IN ADVANCE, AND IN WRITING, BY LIGO LABORATORY. IN GENERAL WELD REPAIRS AND PRESS FIT INSERT REPAIRS ARE NEVER ACCEPTABLE; THE MATERIAL SHOULD BE MADE WITH VIRGIN MATERIAL. SPECIAL CIRCUMSTANCES CAN BE REVIEWED IF / WHEN BROUGHT TO THE ATTENTION OF LIGO CONTRACTING OFFICER'S REPRESENTATIVE (COTR) THROUGH A MATERIAL REVIEW BOARD (MRB) PROCESS, REFER TO LIGO-E0900364.
- 9. SURFACE FINISH TO BE AS-PROCESSED FROM MILL/SUPPLIER, FREE FROM SCRATCHES & GOUGES.
- 10. PART WILL BE PORCELAIN COATED AFTER FABRICATION. ALL MOUNTING HOLES WILL BE MASKED ( $\phi 0.63$ ) PRIOR TO PORCELAIN COATING PER LIGO SPEC E1000083-V4.

REV.	DATE	DCN #	DRAWING TREE #
v1	18 NOV 2010	E1000736	-
-	-	-	-
-	-	-	-



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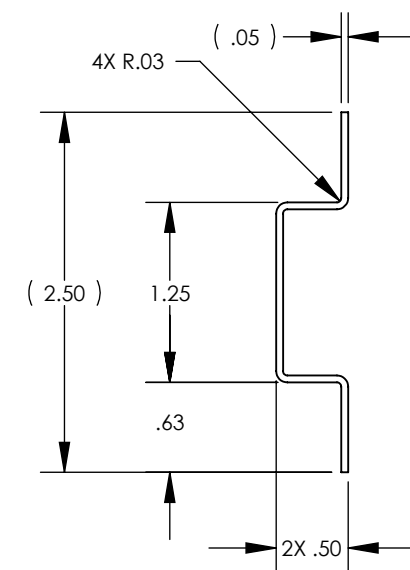
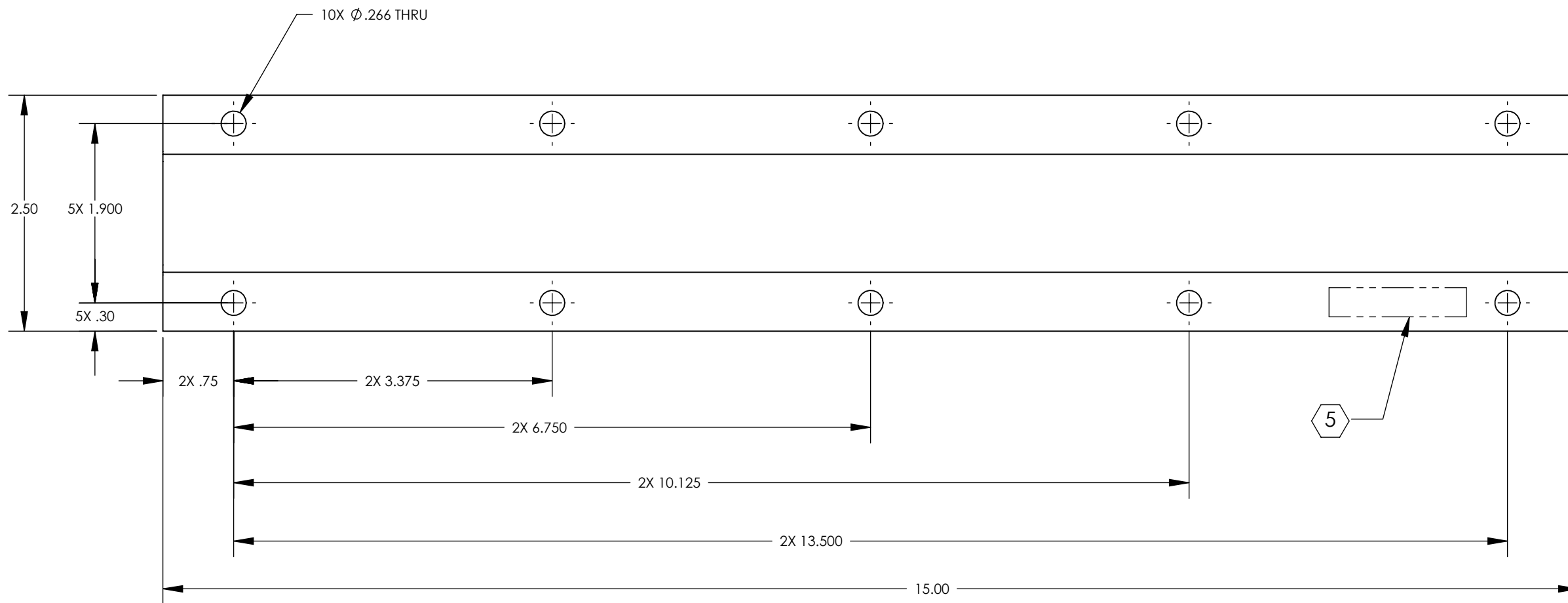
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D1002928\_AdlIGO\_AOS\_ITM Elliptical Baffle Hatsection, PART PDM REV: X-007, DRAWING PDM REV: X-008

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX $\pm .01$ .XXX $\pm .015$ ANGULAR $\pm .5^\circ$				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		<b>ITM Elliptical Baffle Hatsection</b>	
MATERIAL <b>A424 TYPE I, 18GA, SSSL</b>		FINISH <b>SEE NOTE 7</b>		SYSTEM <b>ADVANCED LIGO</b>		SUB-SYSTEM <b>AOS</b>	
NEXT ASSY <b>D1002750</b>				DESIGNER M.RUIZ		DATE 06 NOV 2010	
CHECKER APPROVAL				DRAFTER M.RUIZ		DATE 10 NOV 2010	
SCALE: 3:4				PROJECTION:		SIZE DWG. NO. <b>B D1002928</b>	
SHEET 1 OF 1				REV. <b>v1</b>		REV.	

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