

HAM Structure Lift Assembly parts and quantities:

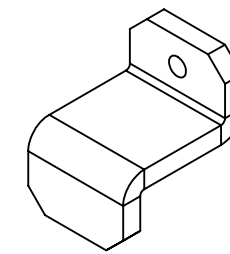
	Part Number	Description	Rev.
1	D1001769	GUIDE SHAFT SUPPORT, HAM STRUCTURE LIFT	v1
2	D1001770	BOTTOM BEARING SUPPORT, HAM STRUCTURE LIFT	v1
3	D1001771	TOP BEARING SUPPORT, HAM STRUCTURE LIFT	v1
4	D1001772	BELLOWS SUPPORT, HAM STRUCTURE LIFT	v1
5	D1001773	YOKE, HAM STRUCTURE LIFT	v1
6	D1001774	YOKE ARM, HAM STRUCTURE LIFT	v1
7	D1001776	WORM SHAFT, HAM STRUCTURE LIFT	v1
8	D1001777	WORM SHAFT BEARING SUPPORT, HAM STRUCTURE	v1
9	D1001778	GEAR COVER SUPPORT, HAM STRUCTURE LIFT	v1
10	D1001779	GEAR COVER, HAM STRUCTURE LIFT	v1
11	D1001788	HSTS LIFTING BRACKET	v1
12	D1001789	HSTS LIFTING BRACKET CLAMP	v1
13	D1001790	HLTS LIFTING BRACKET	v1
14	D1001791	HLTS LIFTING BRACKET CLAMP	v1
15	D1001792	OMC LIFTING BRACKET	v1
16	D1001793	OMC LIFTING BRACKET CLAMP	v1

D1001793 OMC BRACKET CLAMP, HAM STRUCTURE LIFT, αLIGO, SUS, PART PDM REV: X-002, DRAWING PDM REV: X-003

8 7 6 5 4 3 2 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

REV.	DATE	DCN #	DRAWING TREE #
V1	23 JUL 2010	E1000270	



D

6) HELICOIL INSTALLATION:
 MACHINE SHOP:
 A) DRILL PILOT HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
 B) COUNTERSINK HOLE TO 120°±5°, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000, FOR DIAMETER
 C) TAP HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
 D) REMOVE ALL CHIPS
 E) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AND AS PER AGREED INSPECTION LIGO:
 F) CLEAN ALL OF THE PARTS (TOOLS, METAL PARTS, HELICOILS, INSERT TOOL ETC ...) AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
 G) HANDLE PARTS AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
 H) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AS PER AN AGREED INSPECTION
 I) INSERT THE HELICOIL WITH TOOL TO ¼ TO ½ PITCH BELOW SURFACE
 J) TEST WITH APPROPRIATE SCREW
 K) BREAK OFF AND REMOVE TANG

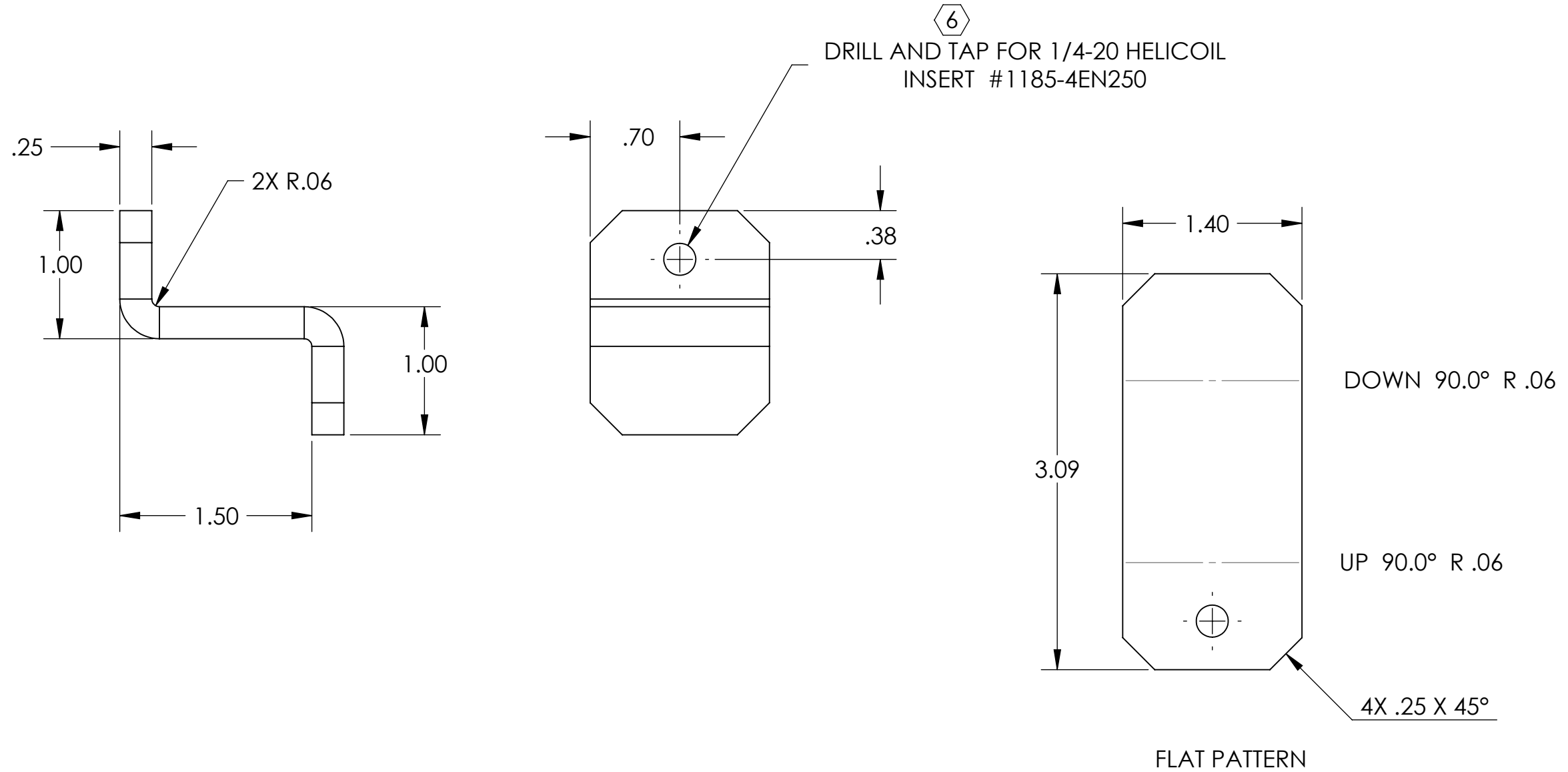
C

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

8) PART MAY BE MACHINED FROM BLOCK.

B

A



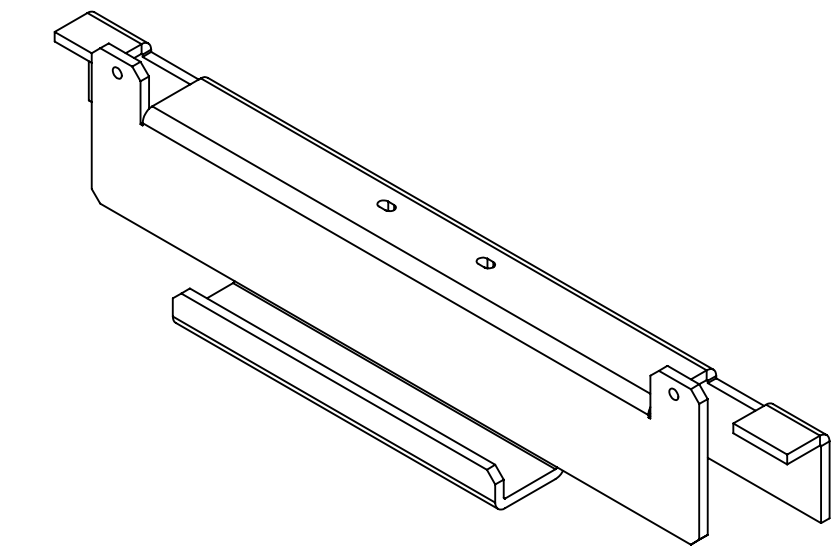
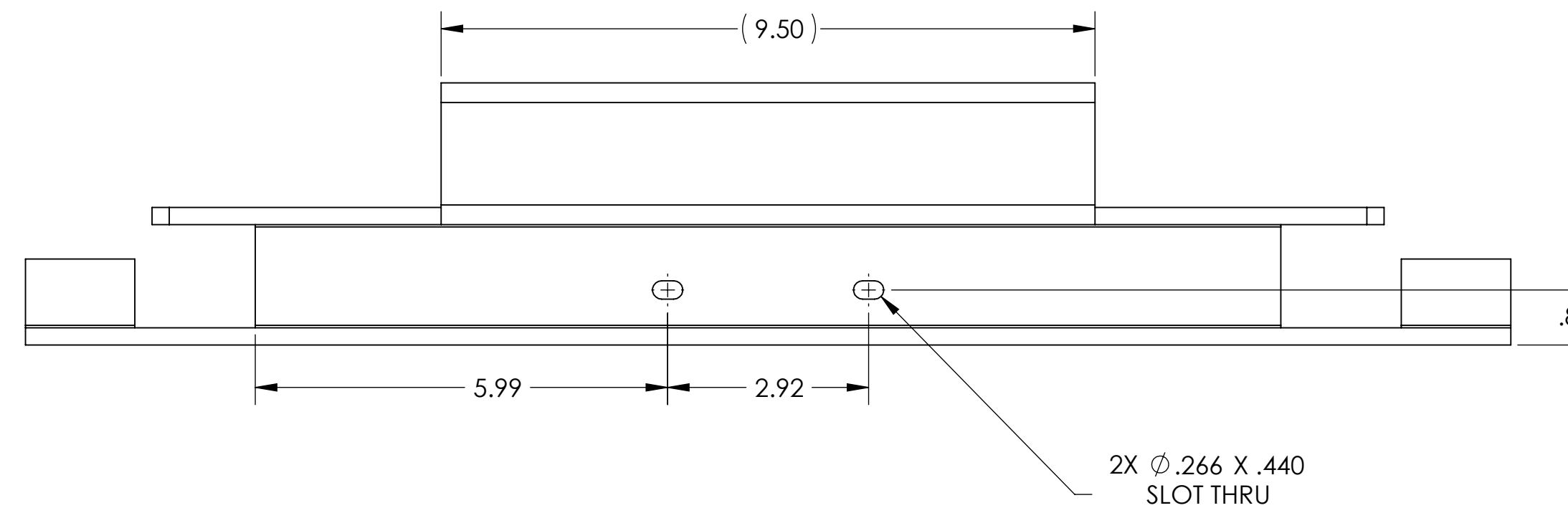
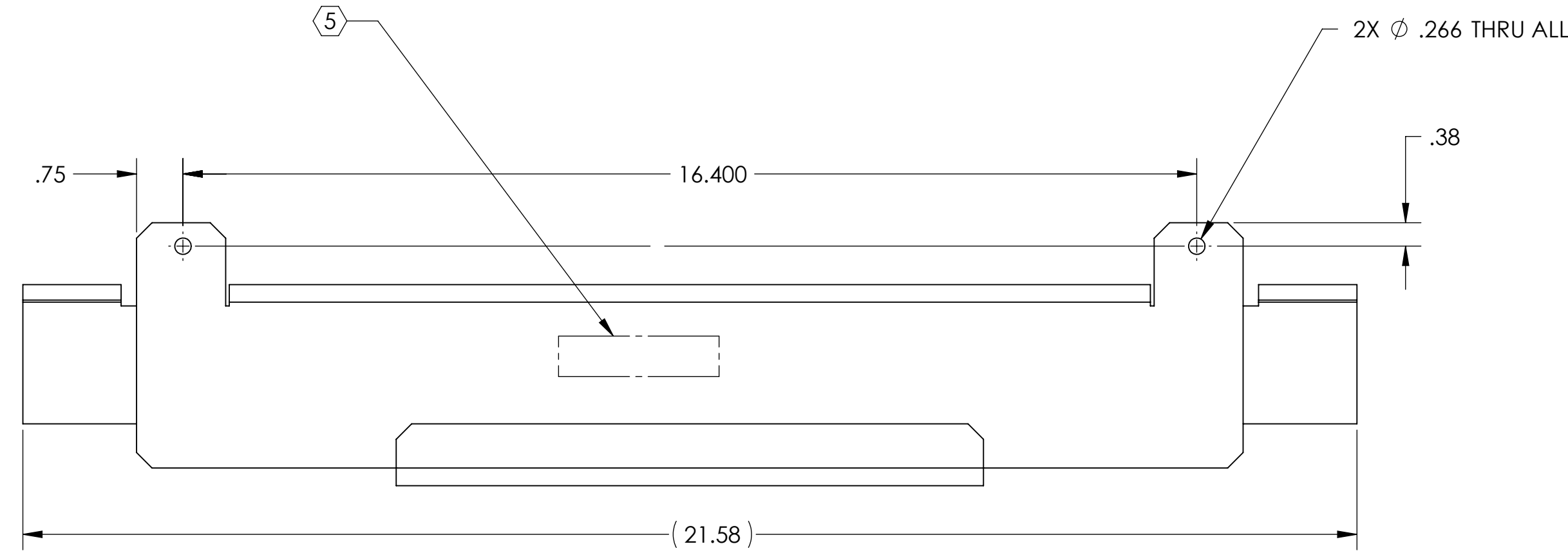
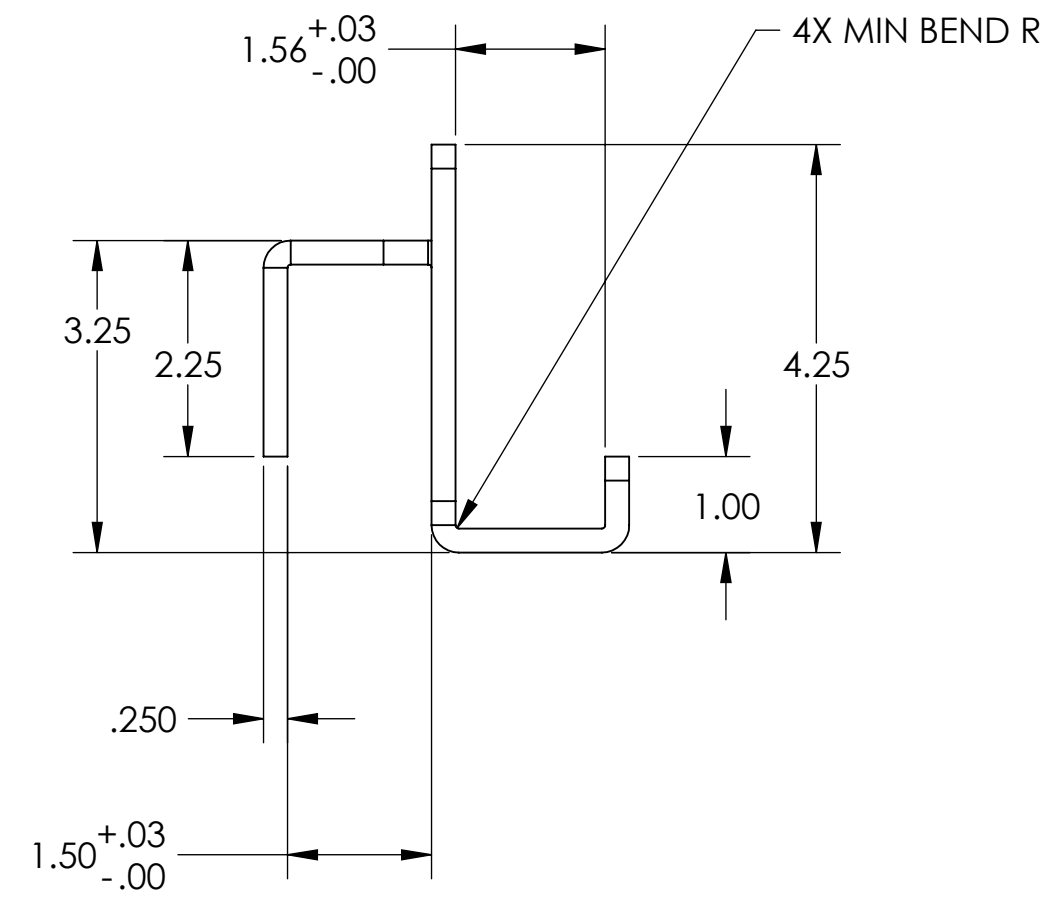
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		OMC BRACKET CLAMP, HAM STRUCTURE LIFT	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM SUS		DESIGNER K. BUCKLAND	1 JUN 2010
ANGULAR ± 0.5°				NEXT ASSY D1001664		DRAFTER K. BUCKLAND	23 JUL 2010
MATERIAL 304 SSTL 8)				FINISH 32 μinch		CHECKER	SIZE DWG. NO. B D1001793
						APPROVAL	REV. v1
						SCALE: 1:1	PROJECTION: SHEET 1 OF 1

8 7 6 5 4 3 2 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.

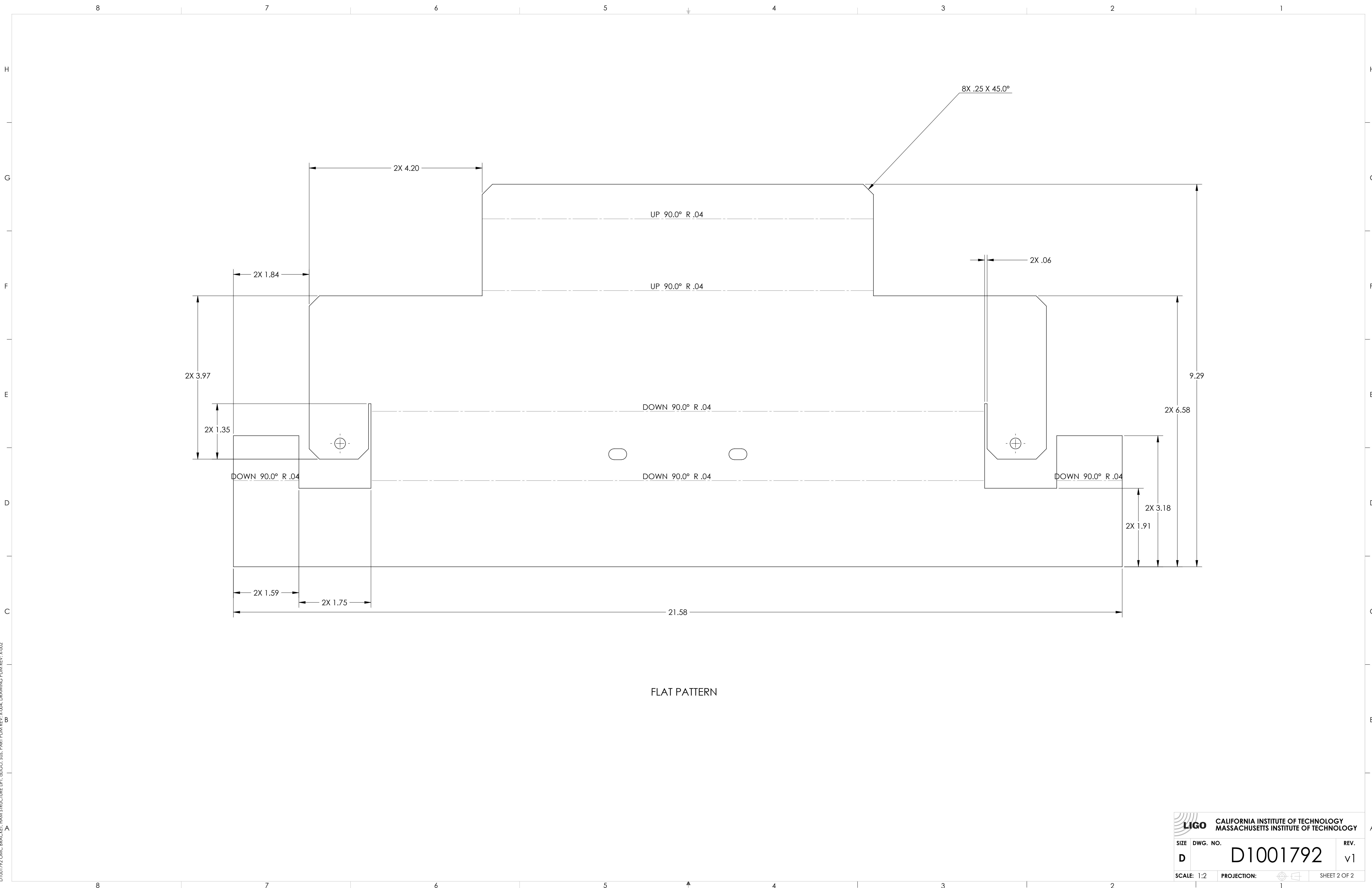
REV.	DATE	DCN #	DRAWING TREE #
V1	26 JUL 2010	E1000270	




SEE SHEET 2 FOR FLAT PATTERN

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		OMC BRACKET, HAM STRUCTURE LIFT	
TOLERANCES: .XX ± .03 .XXX ± .010				SUS		DESIGNER	K. BUCKLAND
ANGULAR ± 0.5°				NEXT ASSY		DATE	1 JUN 2010
MATERIAL		FINISH		DWG. NO.		SIZE	D
304 SSSL		32 μinch		D1001664		D1001792	
				APPROVAL		SCALE	1:2
						PROJECTION	ASME
						SHEET 1 OF 2	
						REV.	v1

D1001792 OMC BRACKET, HAM STRUCTURE LIFT, 01/01, 010, PART PDM REV. X-004, DRAWING PDM REV. X-002



FLAT PATTERN

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE	DWG. NO.	REV.
D	D1001792	v1
SCALE: 1:2	PROJECTION:	SHEET 2 OF 2

D:\001792\OWC BRACKET HAM STRUCTURE IFT.dwg, 3/15, PART PDM REV: X-004, DRAWING PDM REV: X-002

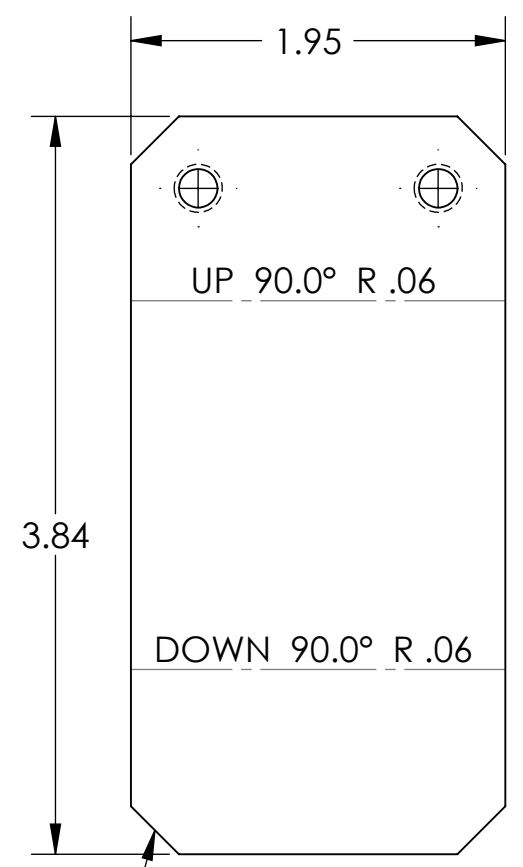
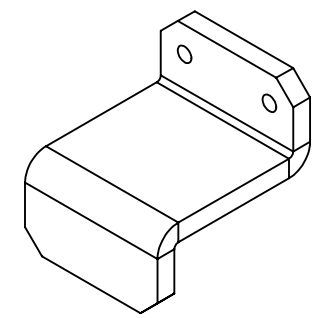
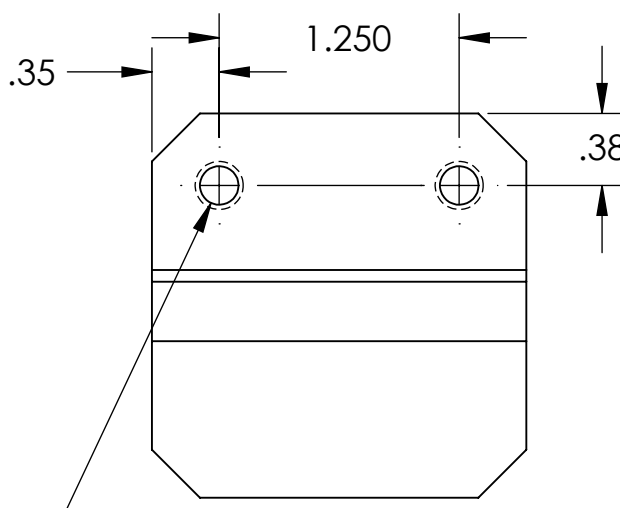
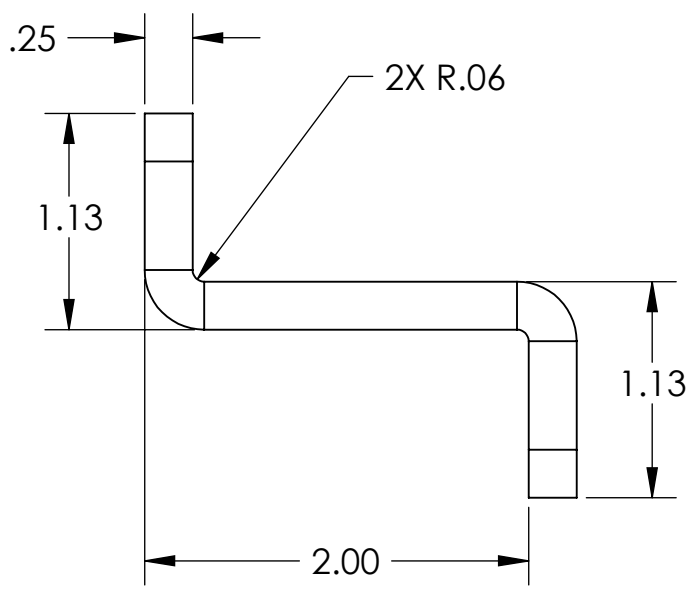
NOTES CONTINUED:
 5) SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO DYES OR INKS) A UNIQUE THREE DIGIT SERIAL NUMBER & REVISION NUMBER ON EACH PART. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. BAG AND TAG PARTS WITH THEIR DRAWING PART NUMBER, REVISION, VARIANT OR "TYPE" (IF 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

REV.	DATE	DCN #	DRAWING TREE #
V1	26 JUL 2010	E1000270	

D 6) HELICOIL INSTALLATION:
 MACHINE SHOP:
 A) DRILL PILOT HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
 B) COUNTERSINK HOLE TO 120O±5O, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000, FOR DIAMETER
 C) TAP HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
 D) REMOVE ALL CHIPS
 E) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AND AS PER AGREED INSPECTION
 LIGO:
 F) CLEAN ALL OF THE PARTS (TOOLS, METAL PARTS, HELICOILS, INSERT TOOL ETC ...) AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
 G) HANDLE PARTS AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
 H) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AS PER AN AGREED INSPECTION
 I) INSERT THE HELICOIL WITH TOOL TO ¾ TO 1½ PITCH BELOW SURFACE
 J) TEST WITH APPROPRIATE SCREW
 K) BREAK OFF AND REMOVE TANG

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

8) PART MAY BE MACHINED FROM BLOCK.



D1001791 HLTS BRACKET CLAMP, HAM STRUCTURE LIFT, LIGO, SUS, PART PDM REV: X-002, DRAWING PDM REV: X-000

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 ± 0.5°				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.		HLTS BRACKET CLAMP, HAM STRUCTURE LIFT	
MATERIAL 304 SSSL 8) FINISH 32 μinch				SYSTEM ADVANCED LIGO SUB-SYSTEM SUS		DESIGNER K. BUCKLAND 12 MAY 2010 DRAFTER K. BUCKLAND 26 JUL 2010	
NEXT ASSY D1001664				APPROVAL		SIZE DWG. NO. B D1001791 REV. v1	
				SCALE: 1:1 PROJECTION:		SHEET 1 OF 1	

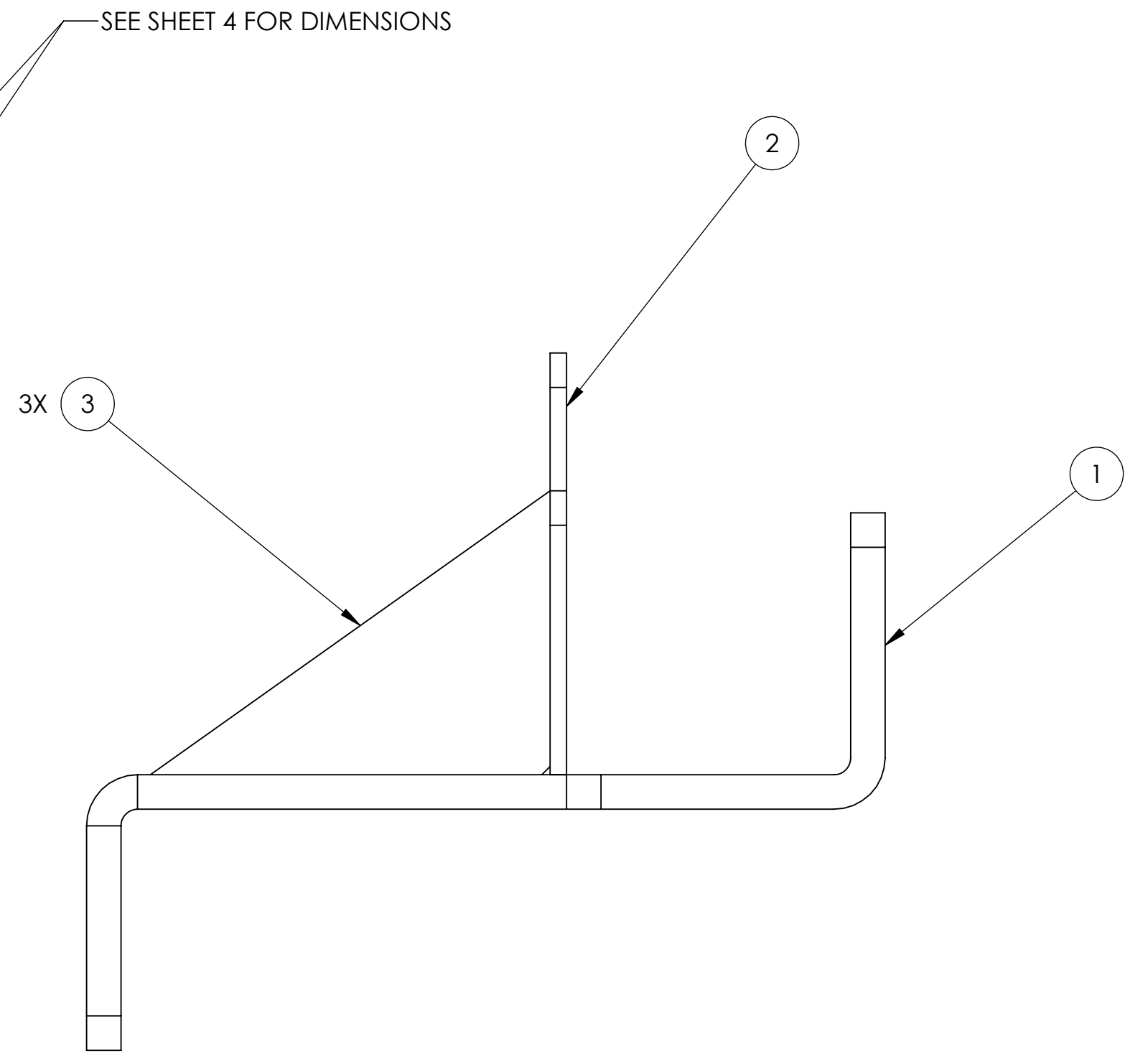
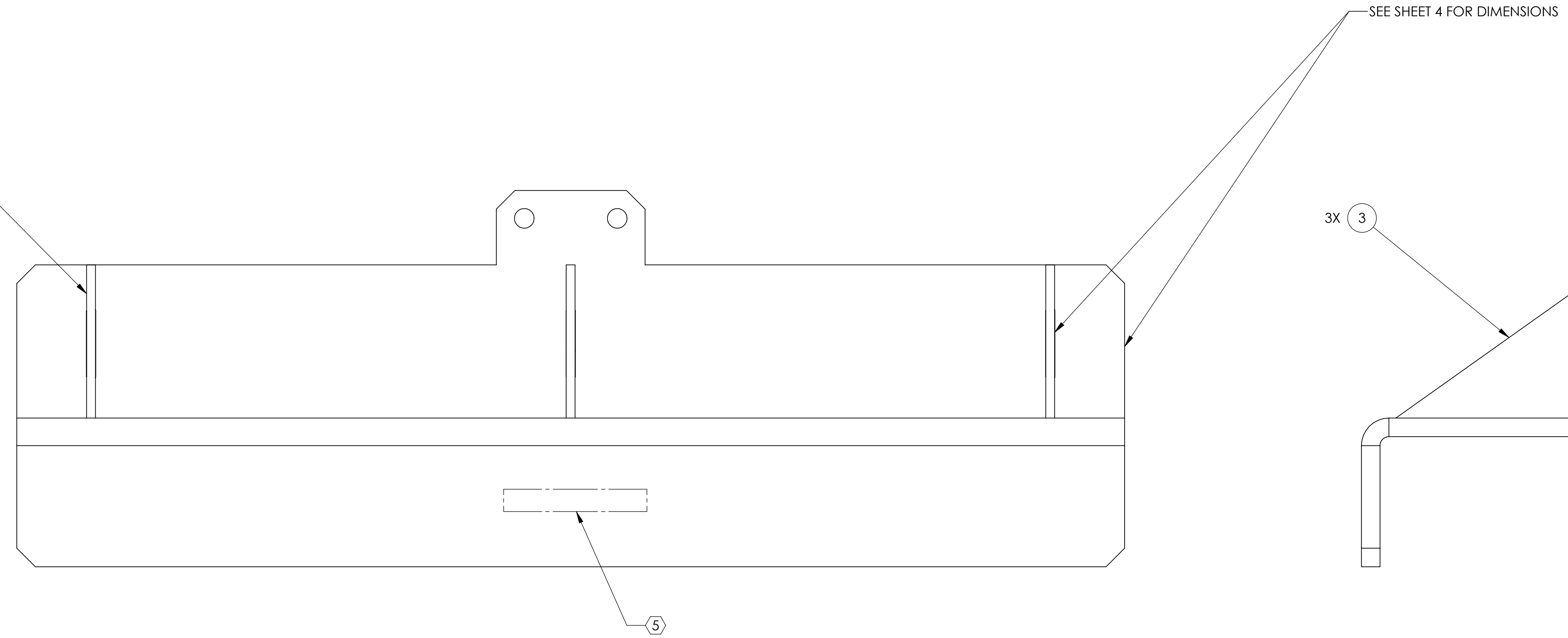
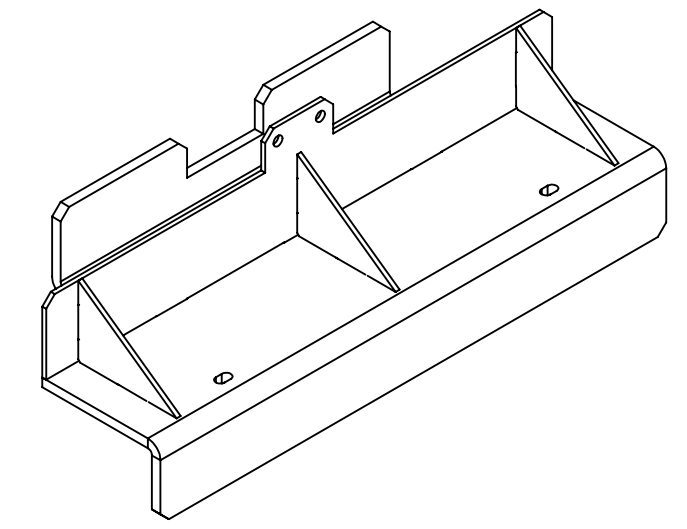
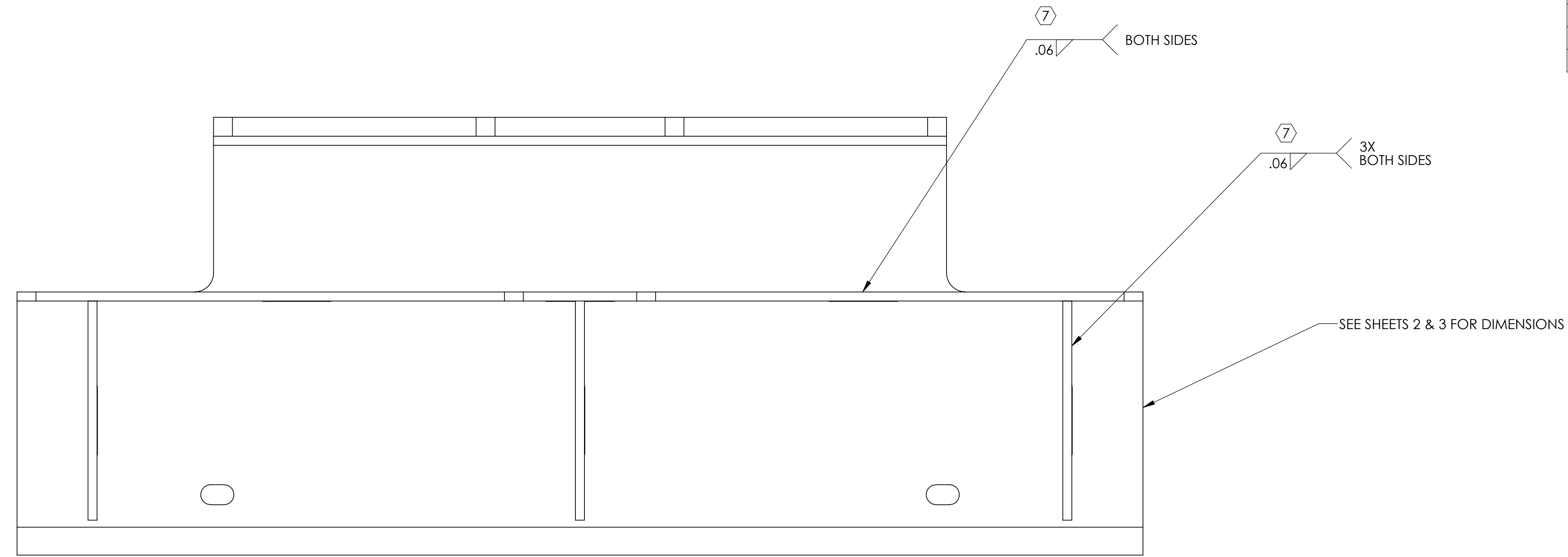
NOTES CONTINUED:

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 BRACKET SHALL BE WELDED IN ACCORDANCE WITH LIGO SPECIFICATION E0900048.

REV.	DATE	DCN #	DRAWING TREE #
V1	26 JUL 2010	E1000270	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
3	HLTS BRACKET RIB	HLTS BRACKET RIB	304 SSSL	3		3
2	HLTS BRACKET WALL	HLTS BRACKET WALL	304 SSSL	1		1
1	HLTS BRACKET	HLTS BRACKET, HAM STRUCTURE LIFT	304 SSSL	1		1

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .03 .XXX ± .010	
ANGULAR ± 0.5°	
MATERIAL	FINISH
304 SSSL	32 μinch

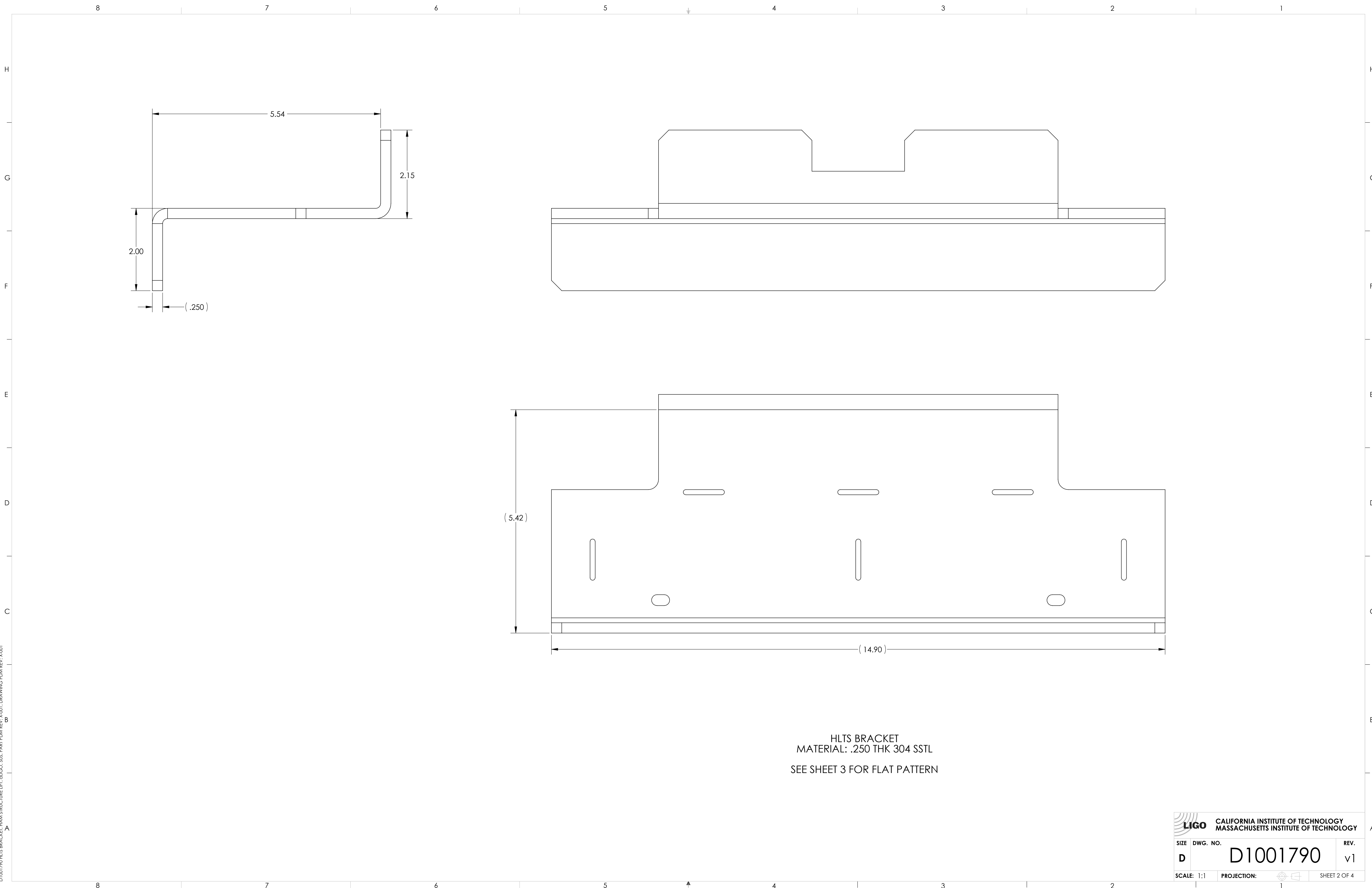
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS


NEXT ASSY: D1001664

PART NAME					
HLTS BRACKET, HAM STRUCTURE LIFT					
DESIGNER	K. BUCKLAND	23 JUL 2010	SIZE	DWG. NO.	
DRAFTER	K. BUCKLAND	26 JUL 2010	D	D1001790	
CHECKER					REV. v1
APPROVAL			SCALE: 1:1	PROJECTION:	SHEET 1 OF 4

D1001790-HLTS BRACKET, HAM STRUCTURE LIFT.dwg, SUS, PART PDM REV: X-002, DRAWING PDM REV: X-001



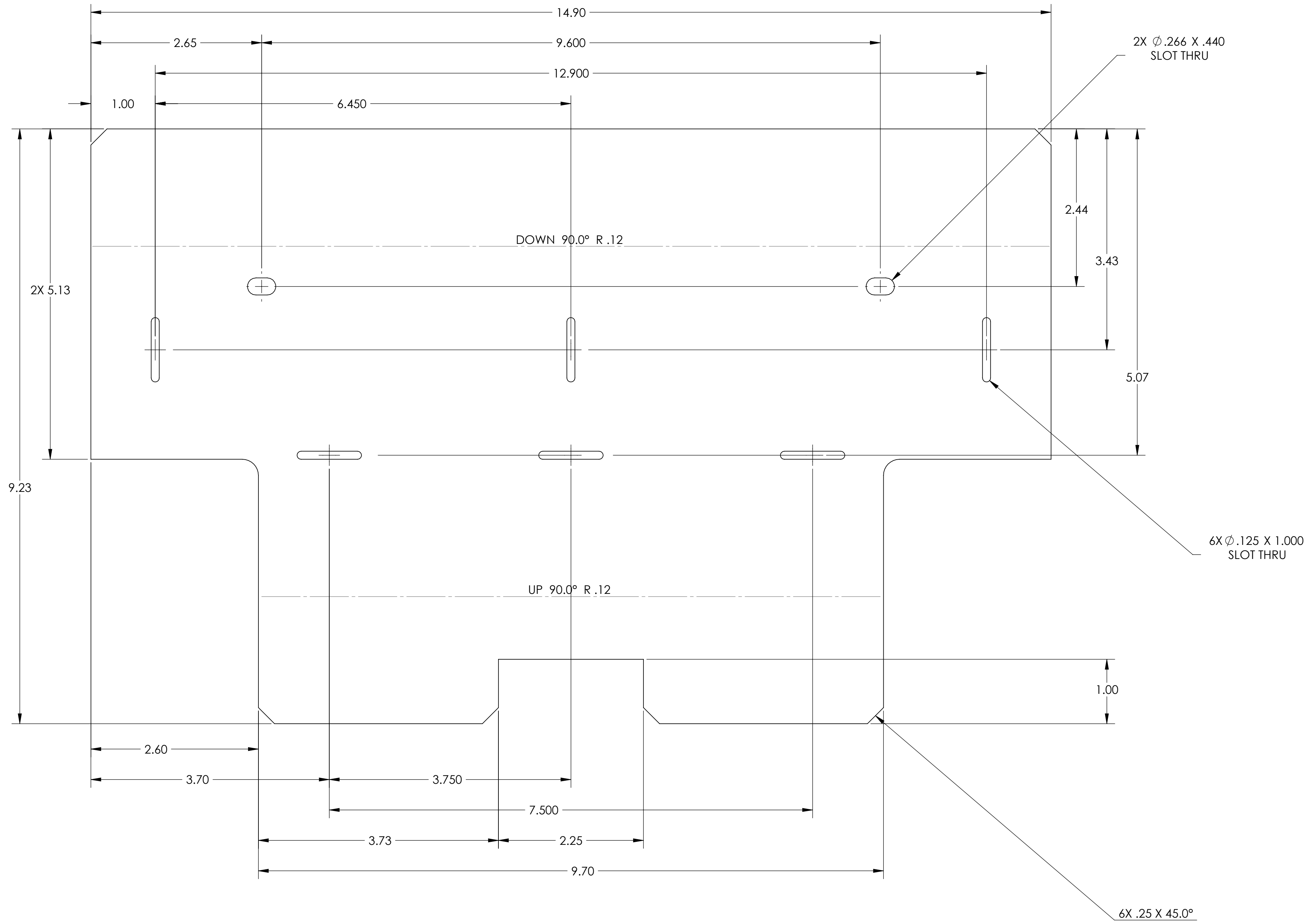
HLTS BRACKET
 MATERIAL: .250 THK 304 SSSL
 SEE SHEET 3 FOR FLAT PATTERN

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	REV.
D	D1001790	v1
SCALE: 1:1	PROJECTION:	SHEET 2 OF 4

D:\001790\HLTS BRACKET\HLTS STRUCTURE.LIF, d:\UGO, SUS, PART PDM REV-X\001, DRAWING PDM REV-X\001

8 7 6 5 4 3 2 1

H
G
F
E
D
C
B
A

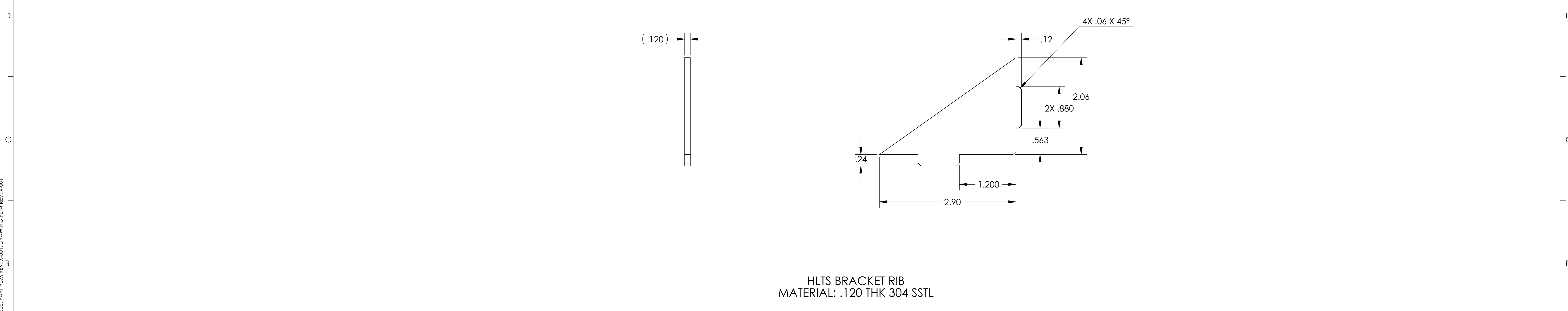
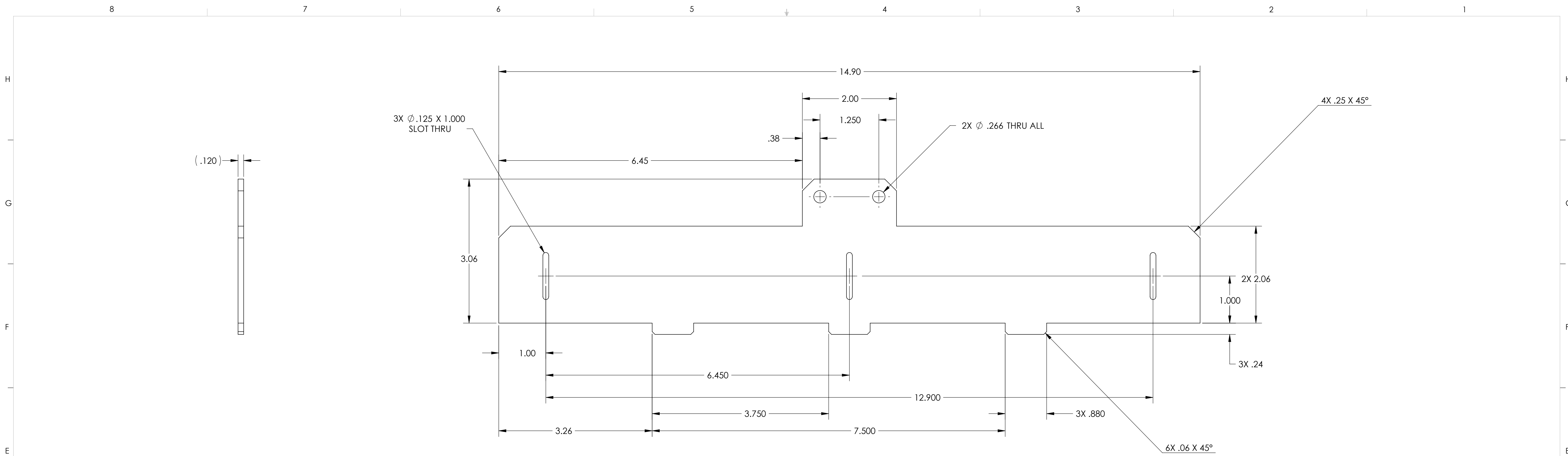


HLTS BRACKET
FLAT PATTERN

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	REV.
D	D1001790	v1
SCALE: 1:1	PROJECTION:	SHEET 3 OF 4

D:\001790\HLTS BRACKET_HAM STRUCTURE\LFT.dwg, SUS, PART PDM REV: X.001, DRAWING PDM REV: X.001

8 7 6 5 4 3 2 1



CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE	DWG. NO.	REV.
D	D1001790	v1
SCALE: 1:1	PROJECTION:	SHEET 4 OF 4

D1001790-HLTS BRACKET, MAIN STRUCTURE.LIF, c:\UGO, SUS, 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 HELICOIL INSTALLATION:

MACHINE SHOP:

- A) DRILL PILOT HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
- B) COUNTERSINK HOLE TO 120 \pm 5 \circ , REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000, FOR DIAMETER
- C) TAP HOLE FOR INSERT SPECIFIED ON THE DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000
- D) REMOVE ALL CHIPS
- E) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AND AS PER AGREED INSPECTION

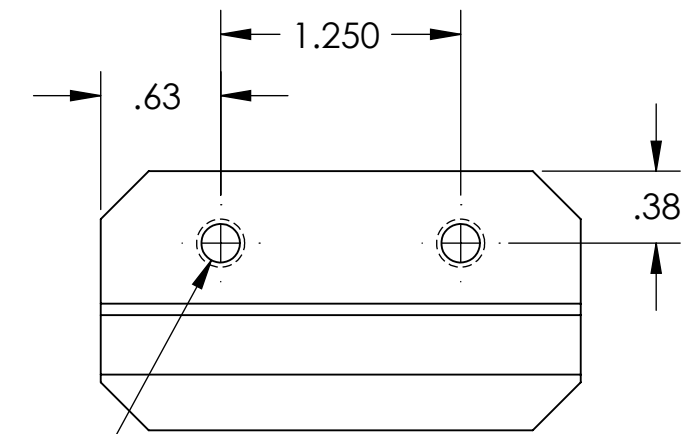
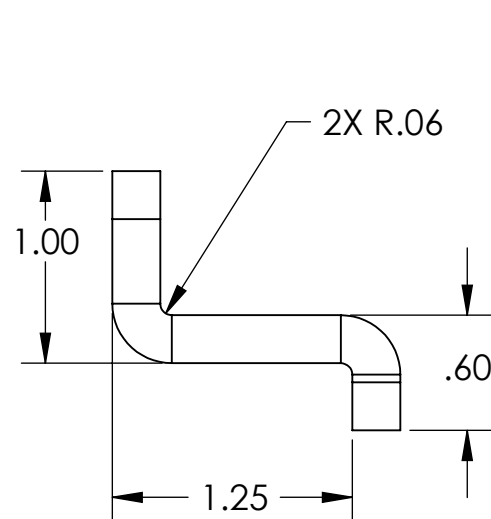
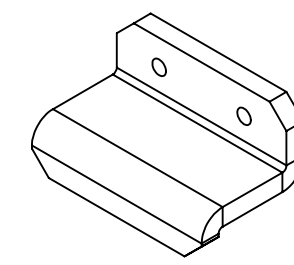
LIGO:

- F) CLEAN ALL OF THE PARTS (TOOLS, METAL PARTS, HELICOILS, INSERT TOOL ETC ...) AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
- G) HANDLE PARTS AS PER LIGO VACUUM COMPATIBILITY, CLEANING METHODS AND QUALIFICATION PROCEDURES E960022
- H) GAGE THREADS WITH GAGE TOOL FOR INSERT SPECIFIED IN DRAWING, REFERENCE HELICOIL PRODUCT CATALOGUE, HC 2000 AS PER AN AGREED INSPECTION
- I) INSERT THE HELICOIL WITH TOOL TO 3/4 TO 1 1/2 PITCH BELOW SURFACE
- J) TEST WITH APPROPRIATE SCREW
- K) BREAK OFF AND REMOVE TANG

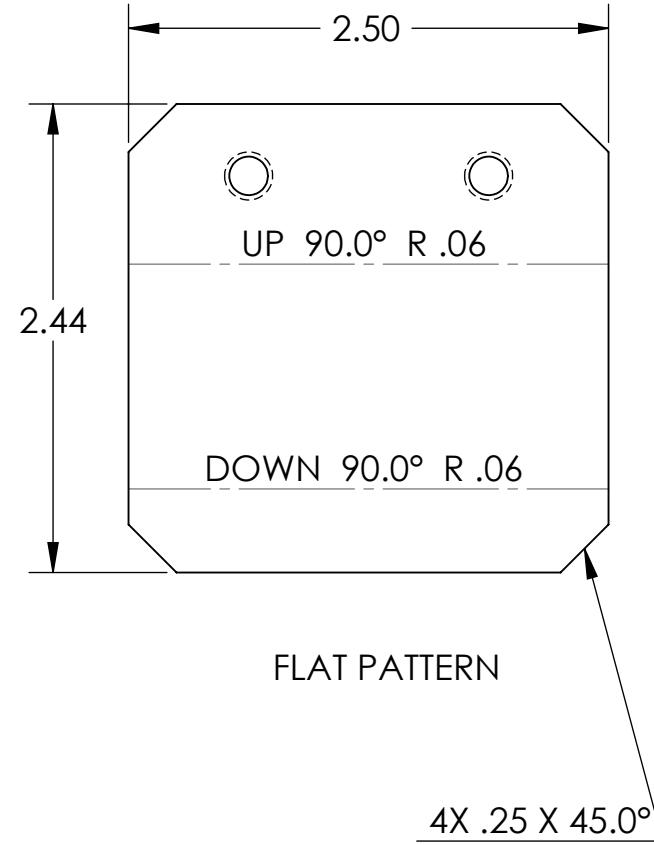
7. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

⑦ PART MAY BE MACHINED FROM BLOCK.

REV.	DATE	DCN #	DRAWING TREE #
V1	26 JUL 2010	E1000270	



⑥
2X DRILL ABD TAP FOR 1/4-20 UNC
HELICOIL INSERT #1185-4EN250



D1001789 HSTS BRACKET CLAMP, HAM STRUCTURE LIFT, LIGO, SUS, PART PDM REV: X-002, DRAWING PDM REV: X-000

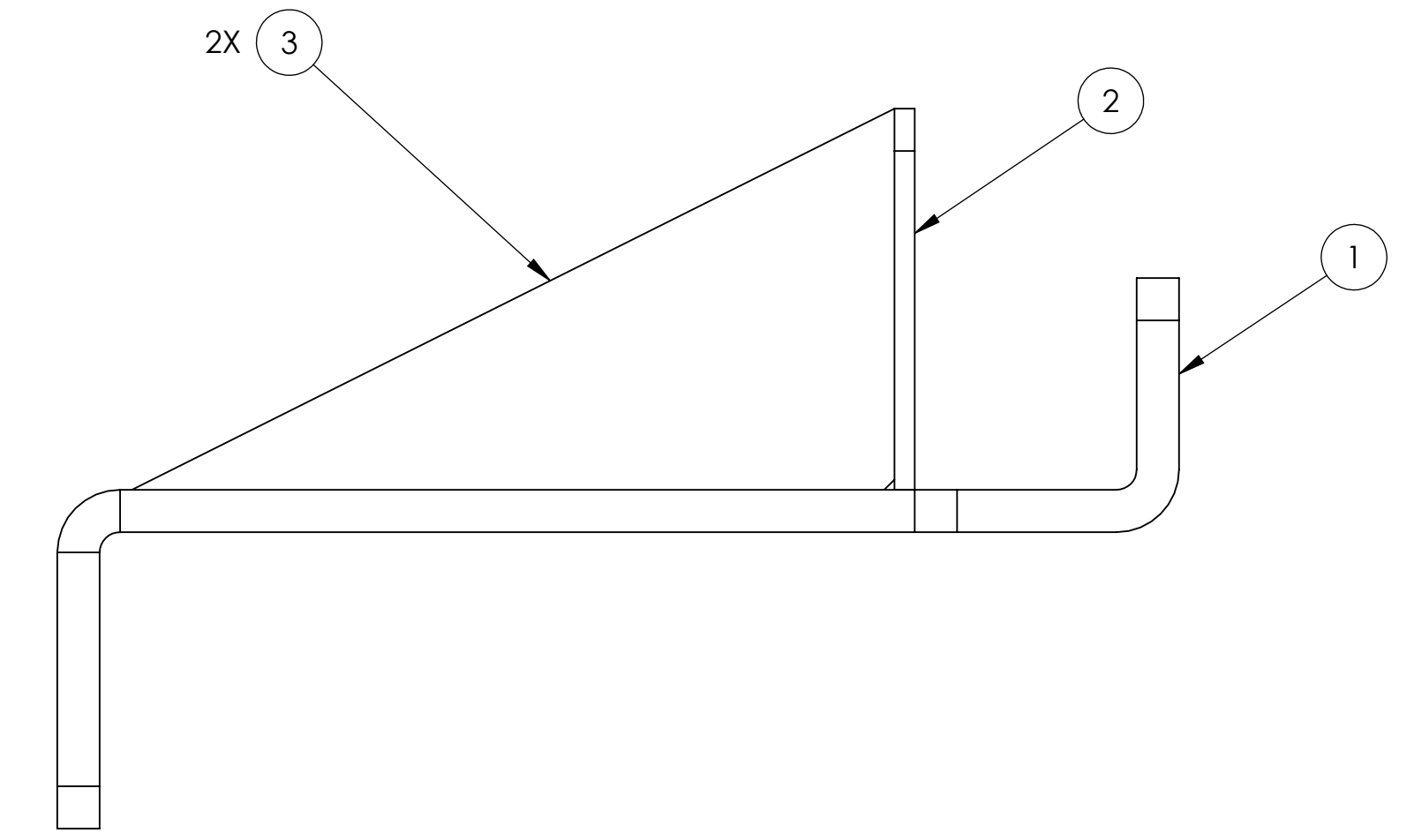
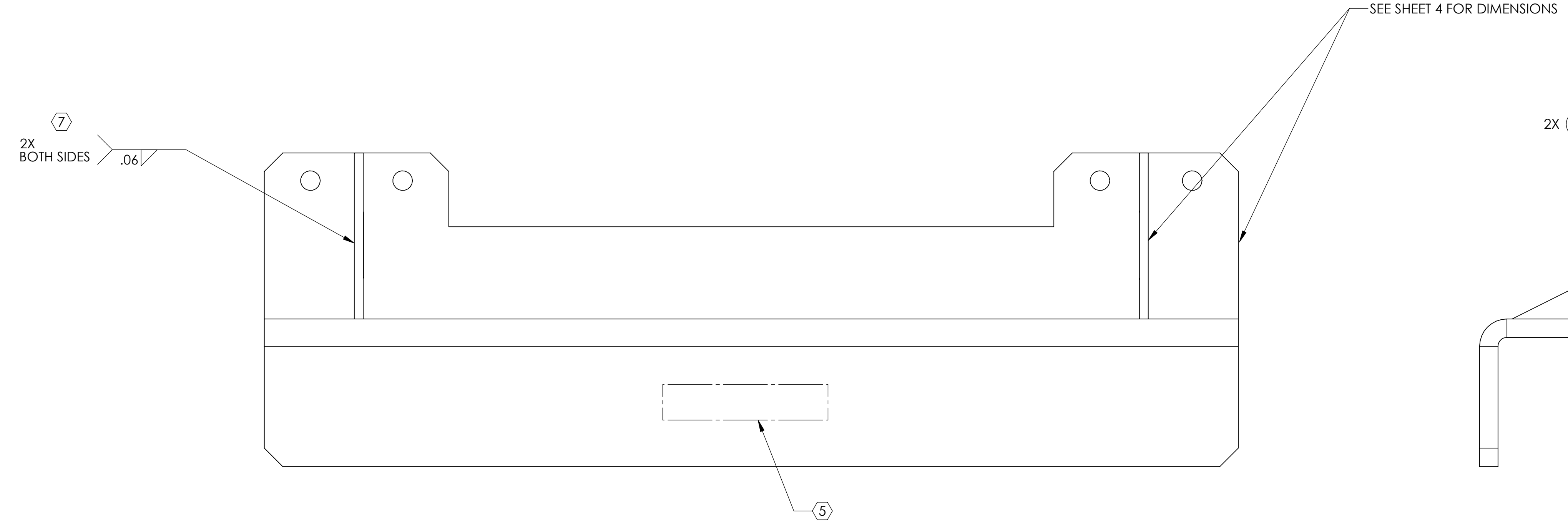
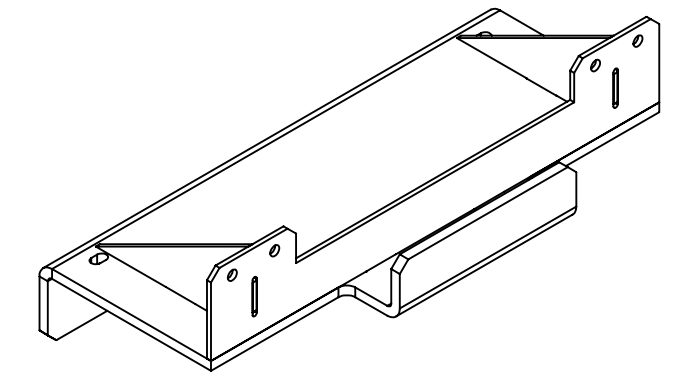
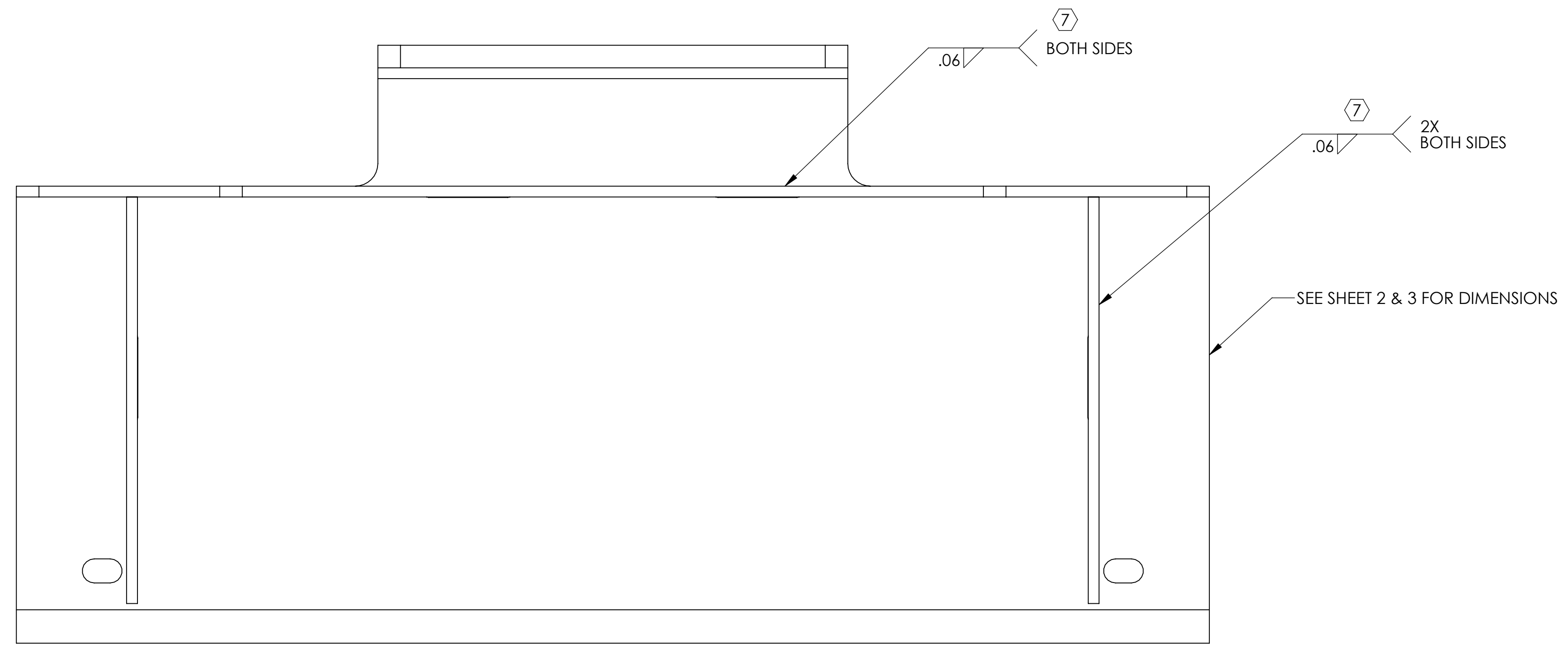
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX \pm .01 .XXX \pm .005 ANGULAR \pm 0.5 \circ				1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, 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.		HSTS BRACKET CLAMP, HAM STRUCTURE LIFT	
MATERIAL		FINISH		SYSTEM		SUB-SYSTEM	
304 SSSL ⑧		32 μ inch		ADVANCED LIGO		SUS	
NEXT ASSY				DESIGNER		DATE	
D1001664				K. BUCKLAND		12 MAY 2010	
				DRAFTER		DATE	
				K. BUCKLAND		26 JUL 2010	
				CHECKER		SIZE DWG. NO.	
				APPROVAL		B D1001789	
				SCALE: 1:1		PROJECTION:	
						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. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

7. BRACKET SHALL BE WELDED IN ACCORDANCE WITH LIGO SPECIFICATION E0900048.

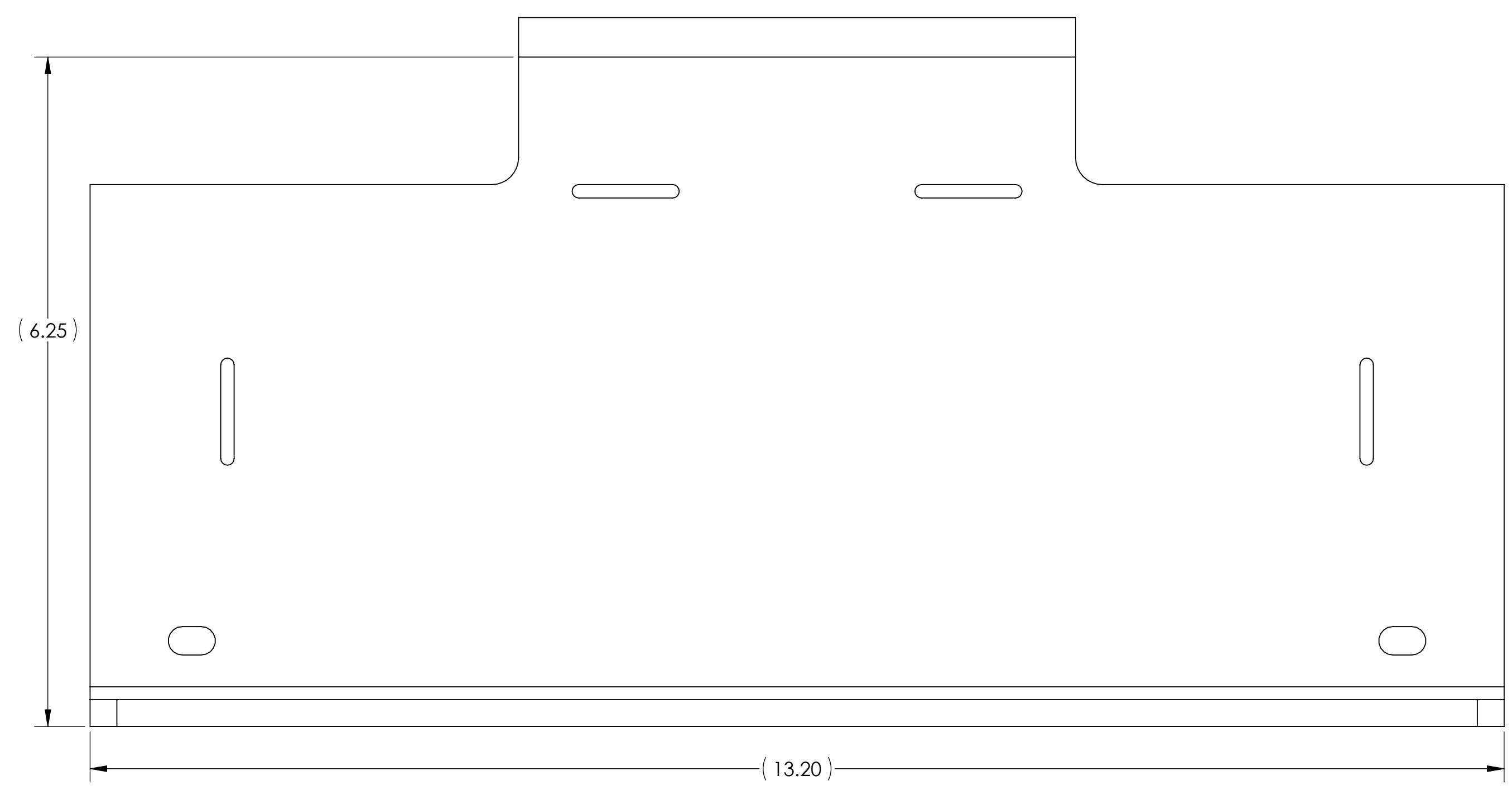
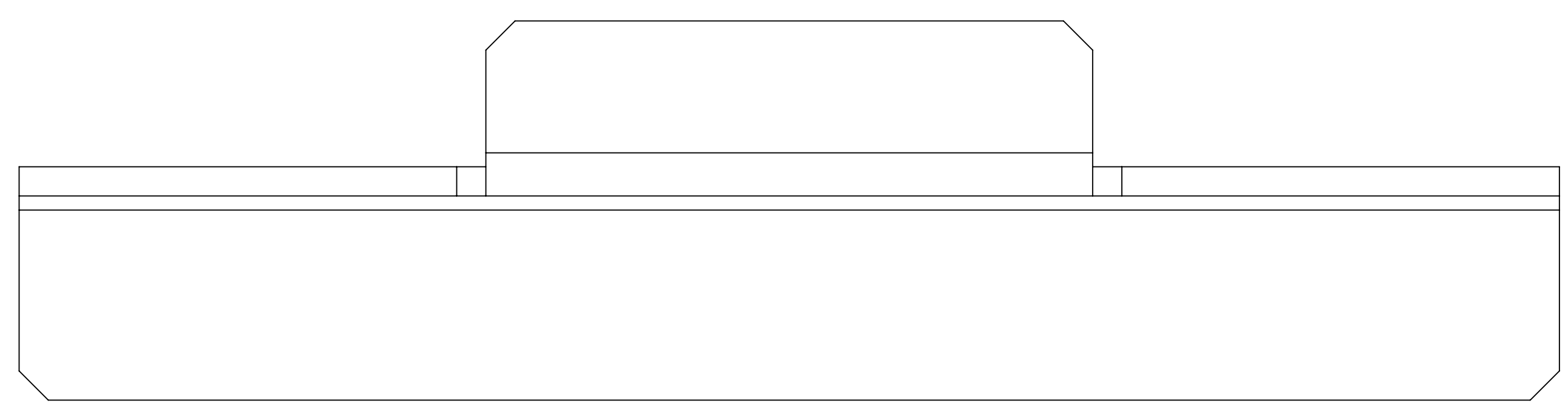
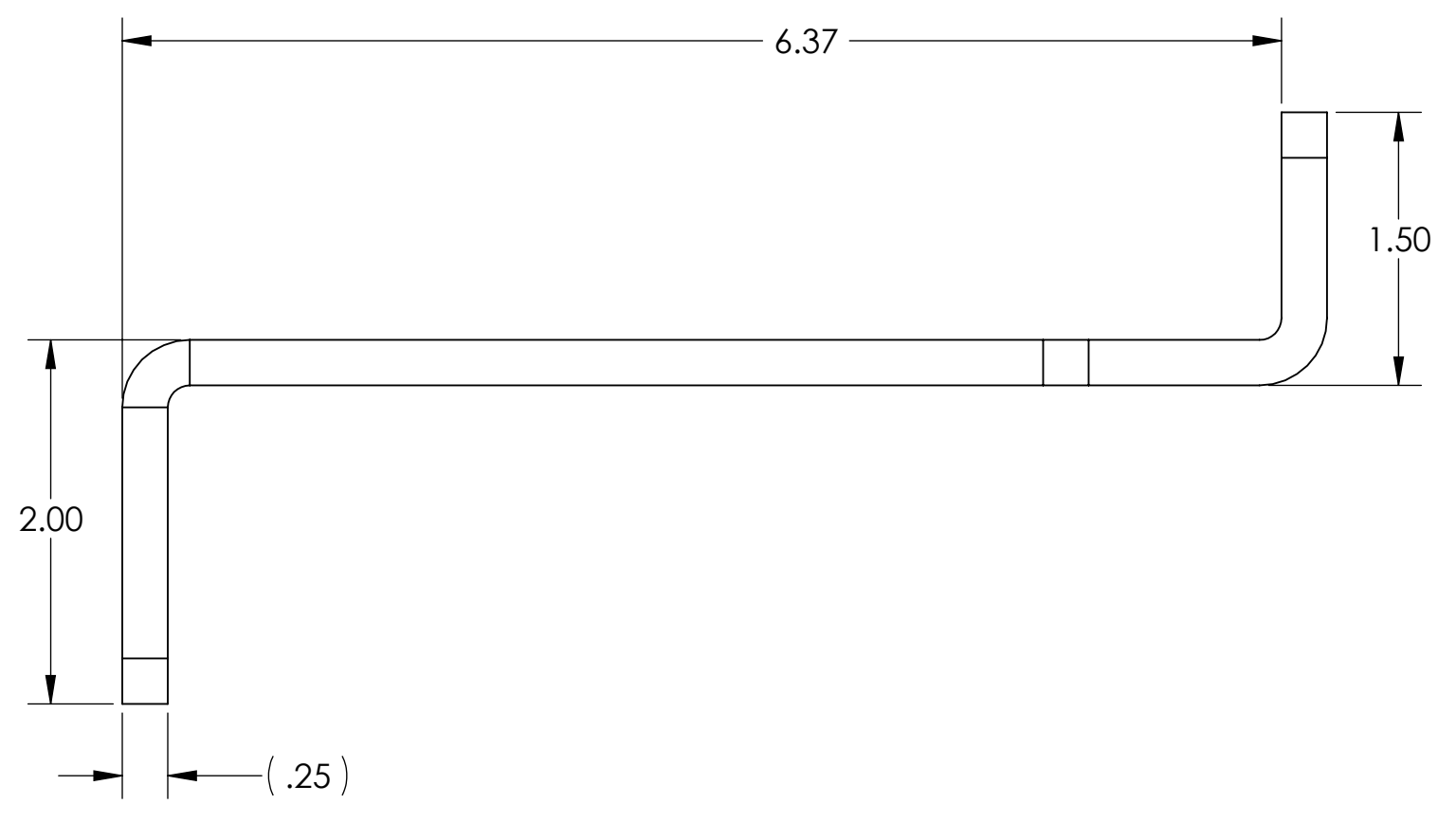
REV.	DATE	DCN #	DRAWING TREE #
V1	27 JUL 2010	E1000270	



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ	SPARE	TOTAL
3	HSTS BRACKET RIB	HSTS BRACKET RIB	304 SSSL	2		2
2	HSTS BRACKET WALL	HSTS BRACKET WALL	304 SSSL	1		1
1	HSTS BRACKET	HSTS BRACKET, HAM STRUCTURE LIFT	304 SSSL	1		1

DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .03 .XXX ± .010 ANGULAR ± 0.5°		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.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME HSTS BRACKET, HAM STRUCTURE LIFT									
MATERIAL 304 SSSL		FINISH 32 μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM SUS		DESIGNER K. BUCKLAND 23 JUL 2010		SIZE D		DWG. NO. D1001788		REV. v1	
				NEXT ASSY D1001664		CHECKER K. BUCKLAND 27 JUL 2010		APPROVAL		SCALE: 1:1		PROJECTION:		SHEET 1 OF 4	

D1001788 HSTS BRACKET, HAM STRUCTURE LIFT, 01UGO, SUS, PART PDM REV: X-002, DRAWING PDM REV: X-000



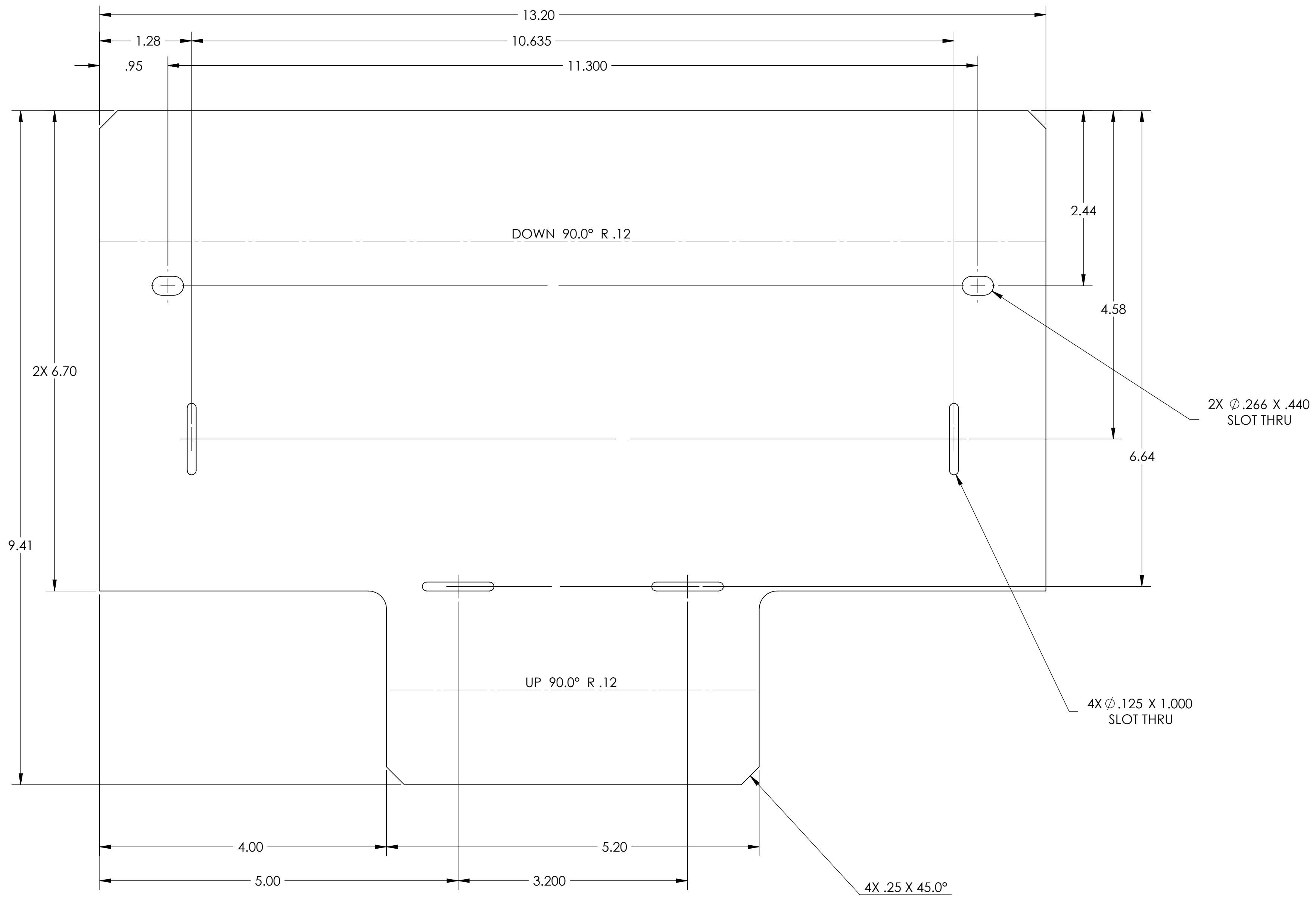
HSTS BRACKET
 MATERIAL: .250 THK 304 SSTL
 SEE SHEET 3 FOR FLAT PATTERN

 CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	REV.
D	D1001788	v1
SCALE: 1:1	PROJECTION:	SHEET 2 OF 4

D:\001788\HSTS BRACKET\HSTS STRUCTURE.LIF, c:\UGO, SUS, PART PDM REV, X, 001, DRAWING PDM REV, X, 000

8 7 6 5 4 3 2 1

H
G
F
E
D
C
B
A

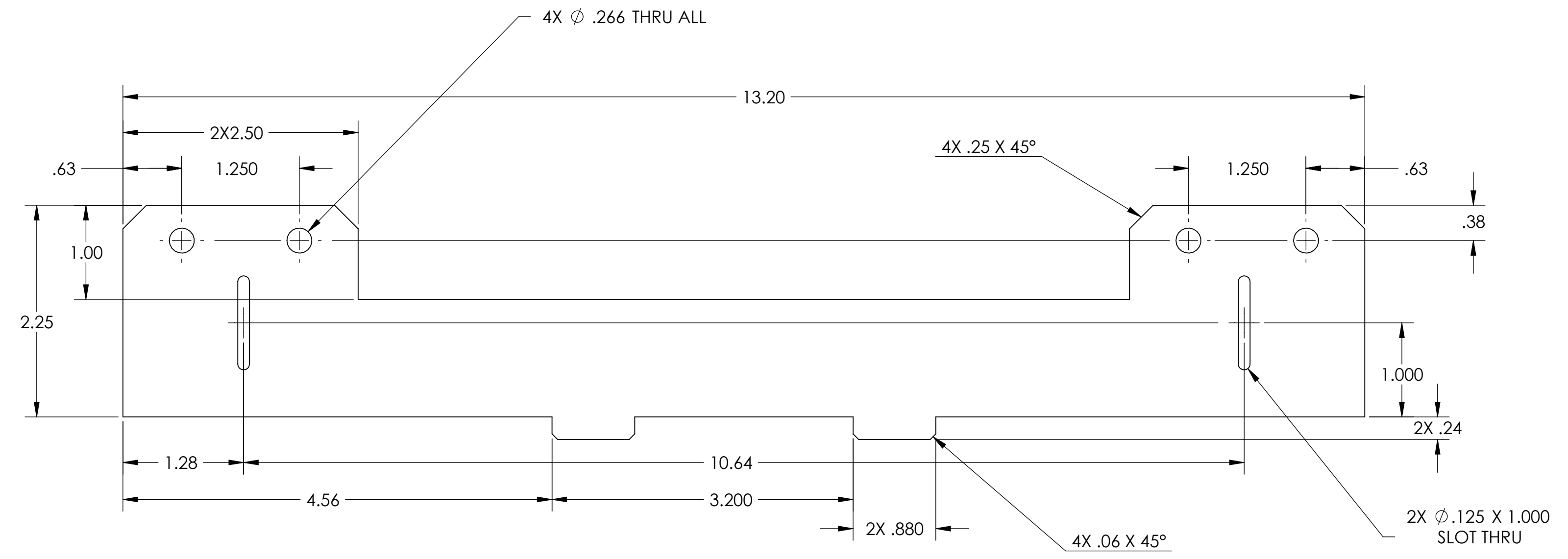
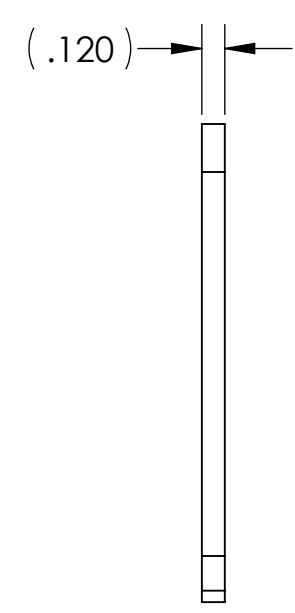


HLTS BRACKET
FLAT PATTERN

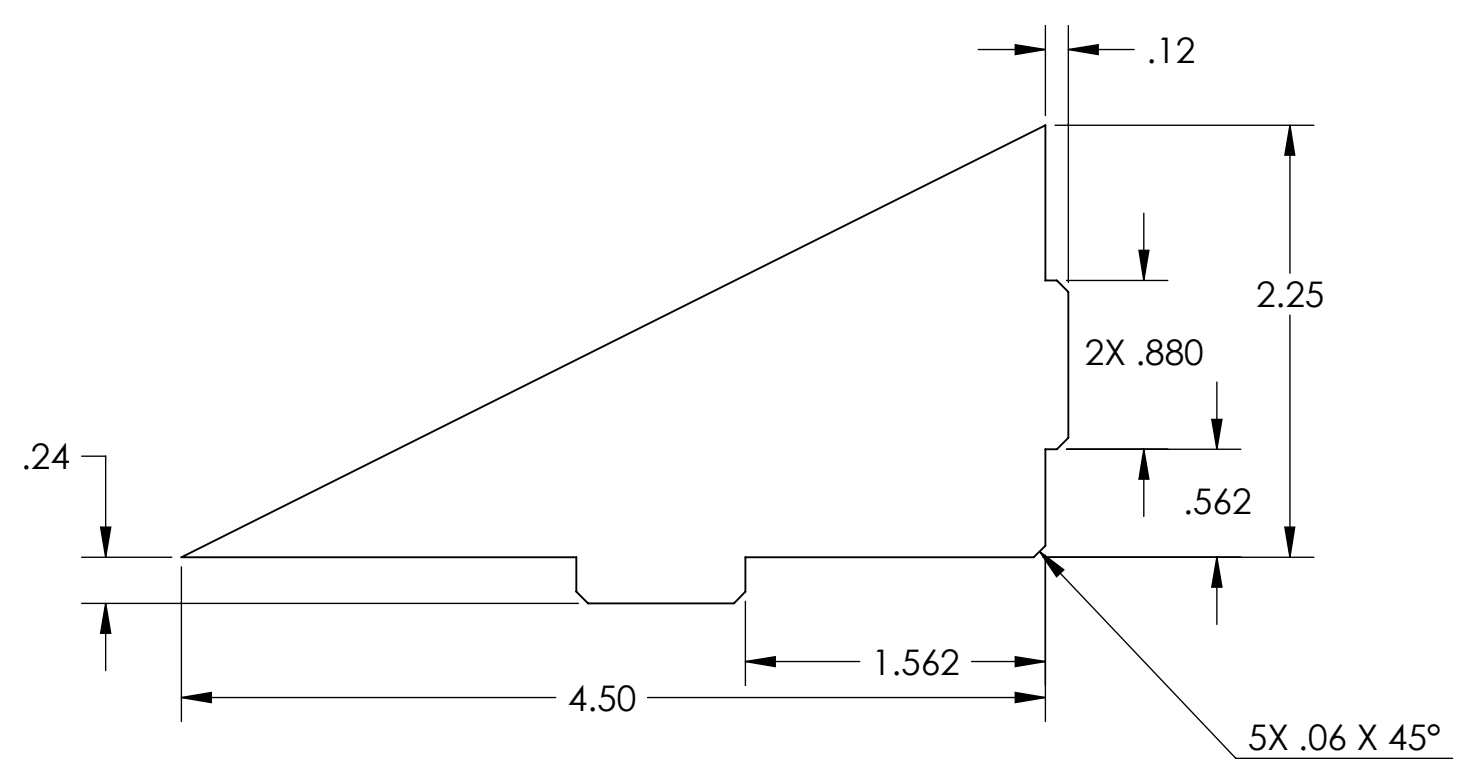
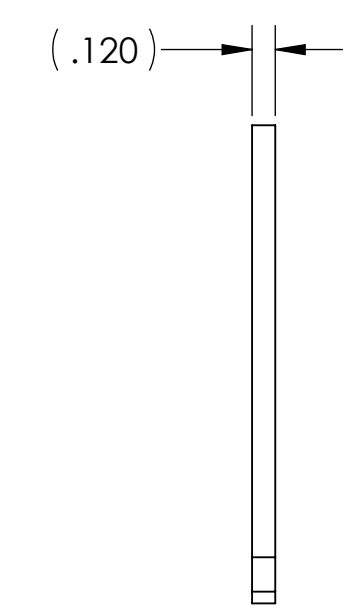
		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE	DWG. NO.	REV.	
D	D1001788	v1	
SCALE: 1:1	PROJECTION:	SHEET 3 OF 4	

D:\001788\HLTS BRACKET\HLTS STRUCTURE\LFT.dwg, SUS, PART PDM REV: X.001, DRAWING PDM REV: X.000

8 7 6 5 4 3 2 1



HSTS BRACKET WALL
MATERIAL: .120 THK 304 SSSL



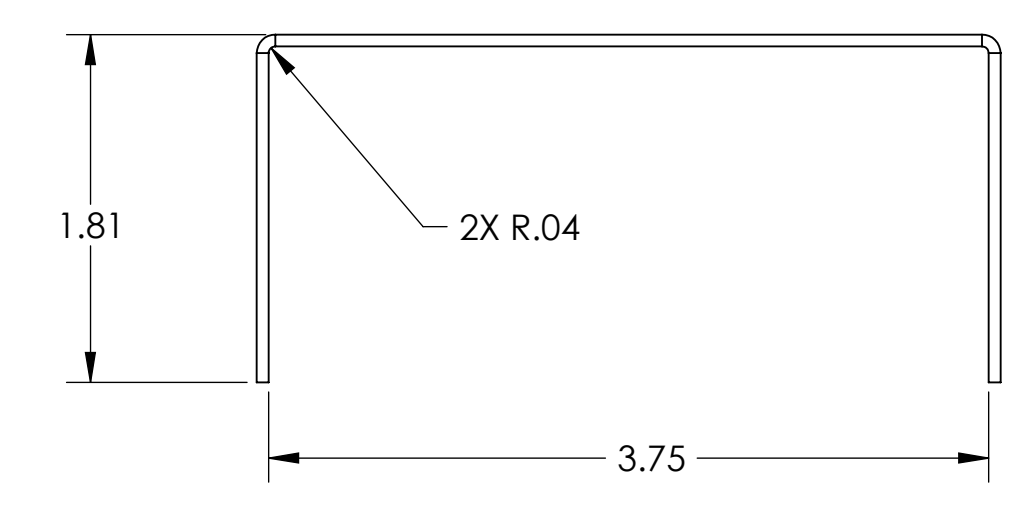
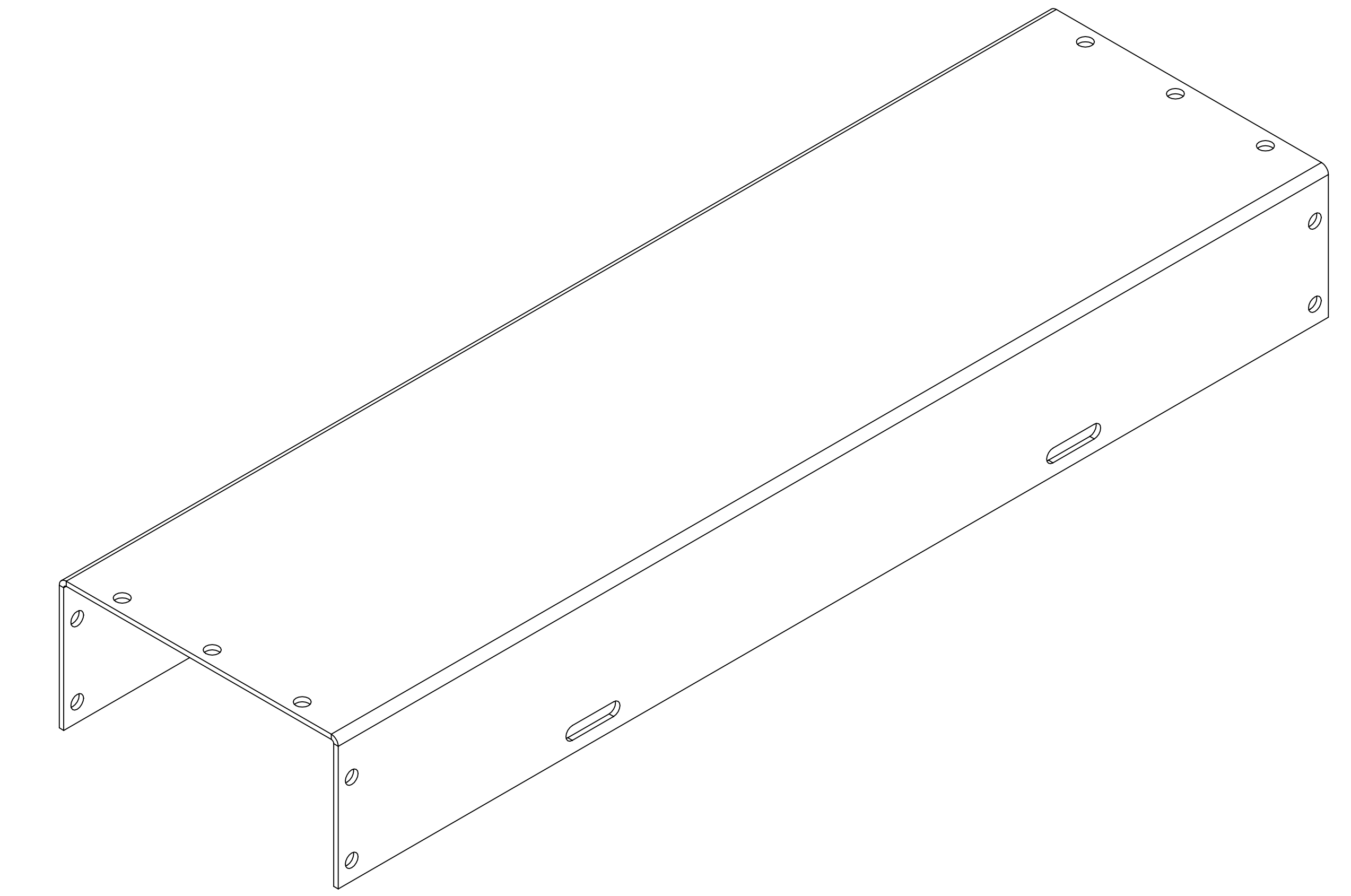
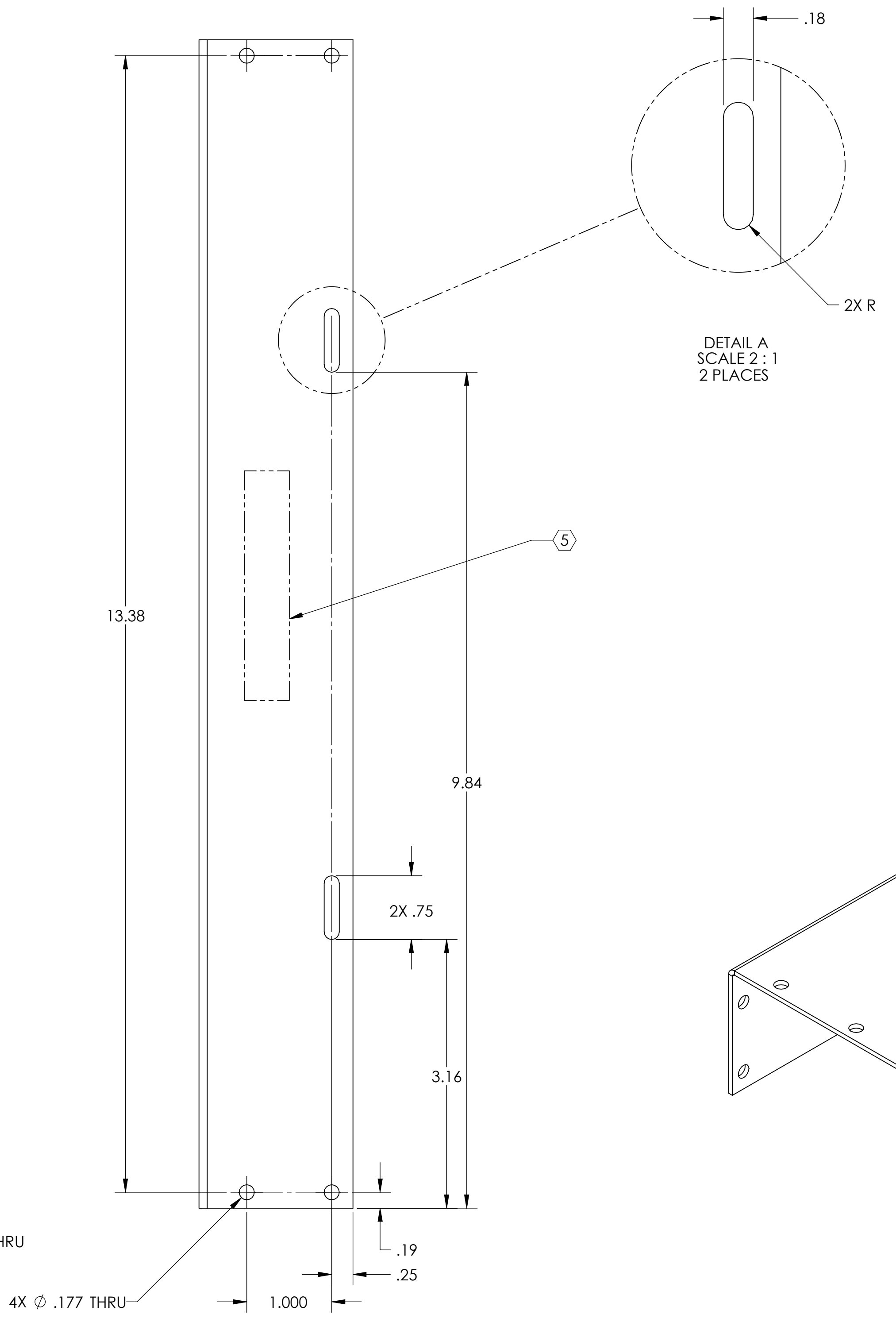
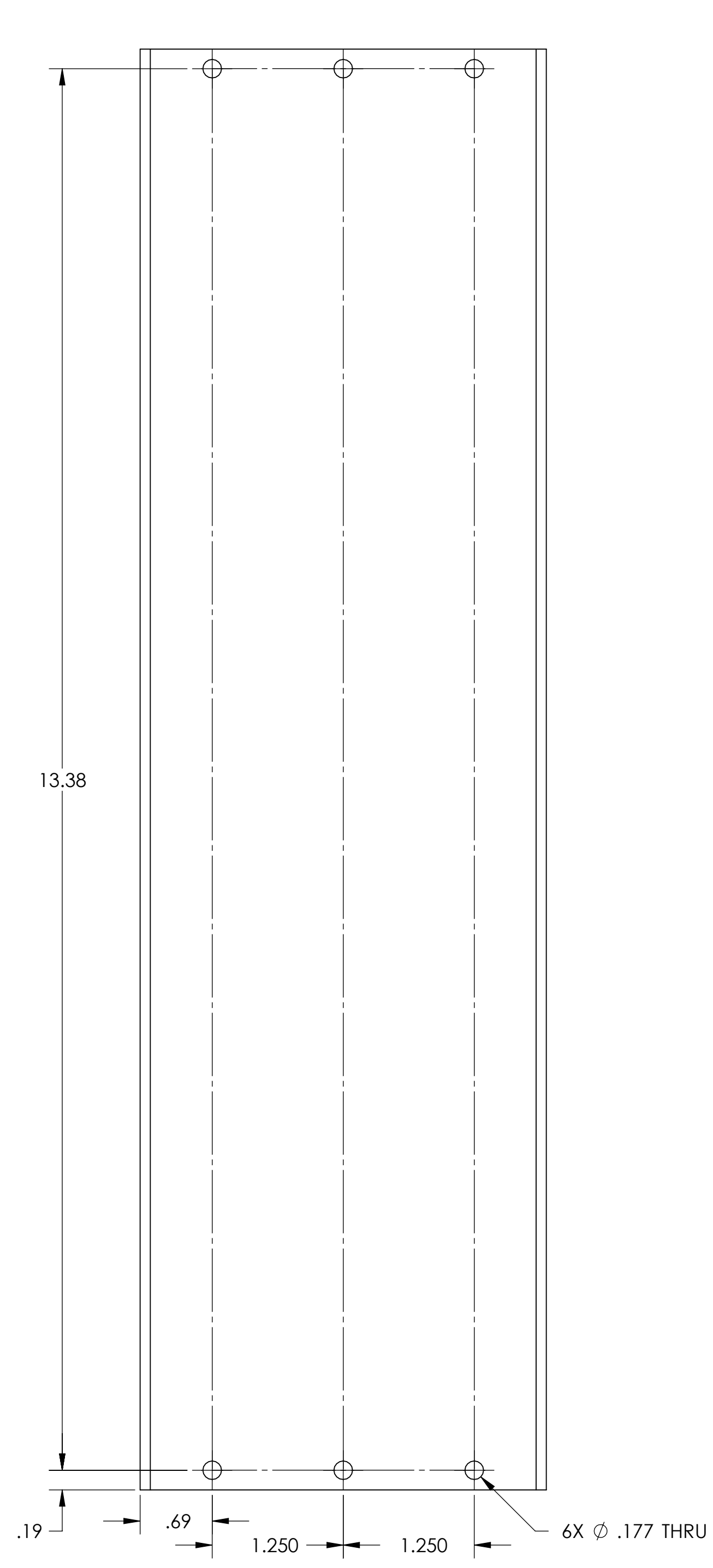
HSTS BRACKET RIB
MATERIAL: .120 THK 304 SSSL

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		
SIZE	DWG. NO.	REV.
D	D1001788	v1
SCALE: 1:1	PROJECTION:	SHEET 4 OF 4

D1001788 HSTS BRACKET WALL STRUCTURE.LIF, C:\GCO, SUS, PART PDM REV-X-001, DRAWING PDM REV, X-000

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.

REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



BOTH SIDES

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 SUS		GEAR COVER, HAM STRUCTURE LIFT	
ANGULAR ± 0.5°		MATERIAL 5052-H32 FINISH 32 μinch		NEXT ASSY D1001664		DESIGNER K. BUCKLAND 25 MAY 2010 SIZE DWG. NO. D1001779 REV. v1	
						DRAFTER L. OLMOS 15 JUNE 2010	
						CHECKER K. BUCKLAND 22 JUL 2010	
						APPROVAL	
						SCALE: 1:1 PROJECTION: SHEET 1 OF 1	

D1001779 GEAR COVER, HAM STRUCTURE LIFT.dwg, SUS, PART PDM REV: X.005, DRAWING PDM REV: X.005

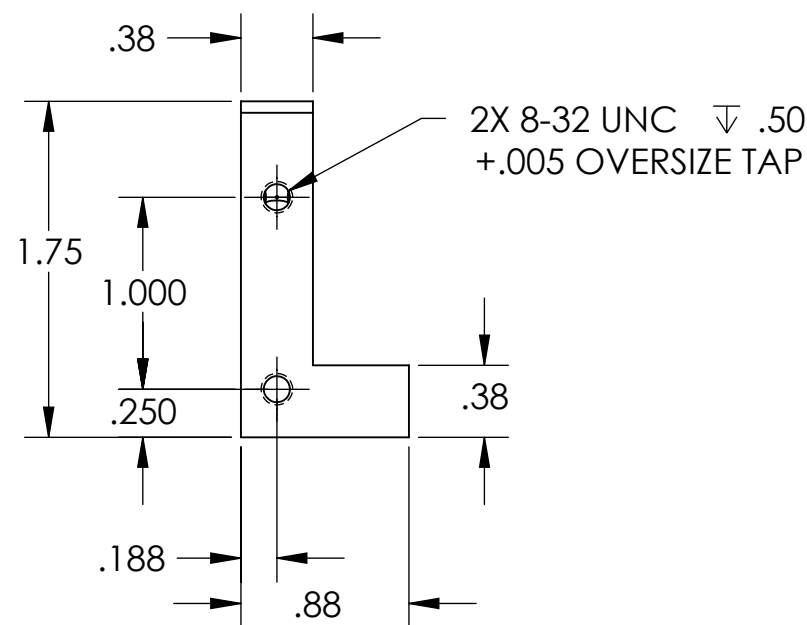
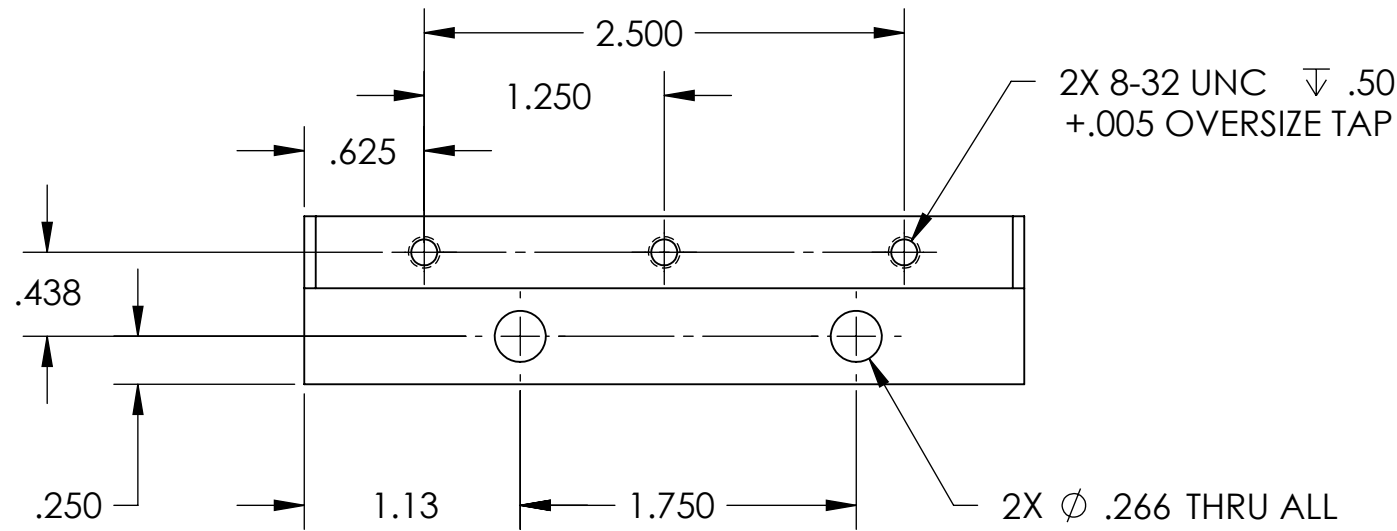
D1001778 GEAR COVER SUPPORT, HAM STRUCTURE LIFT, αLIGO, SUS, PART PDM REV: X-007, DRAWING PDM REV: X-002

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

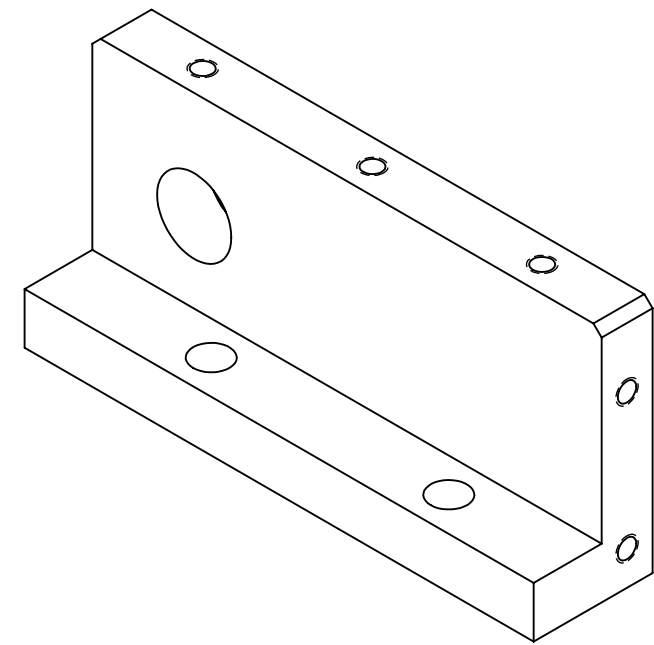
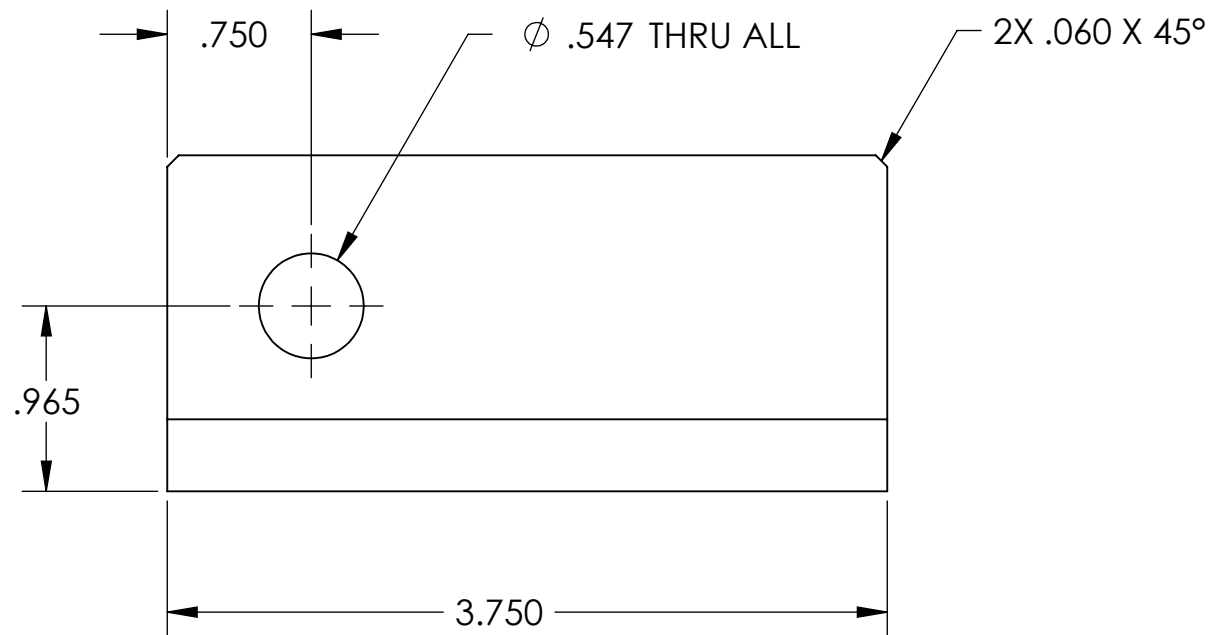
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

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

REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



BOTH ENDS



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX $\pm .01$.XXX $\pm .005$	
ANGULAR $\pm 0.5^\circ$	
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.	
MATERIAL	FINISH
6061-T6 Al	32 μ inch

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SYSTEM: **ADVANCED LIGO** SUB-SYSTEM: **SUS**

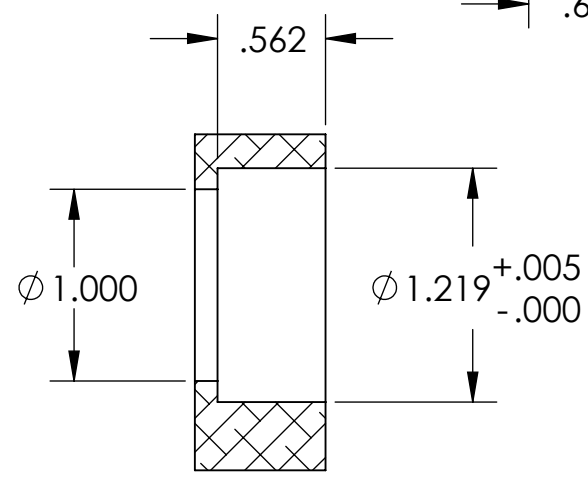
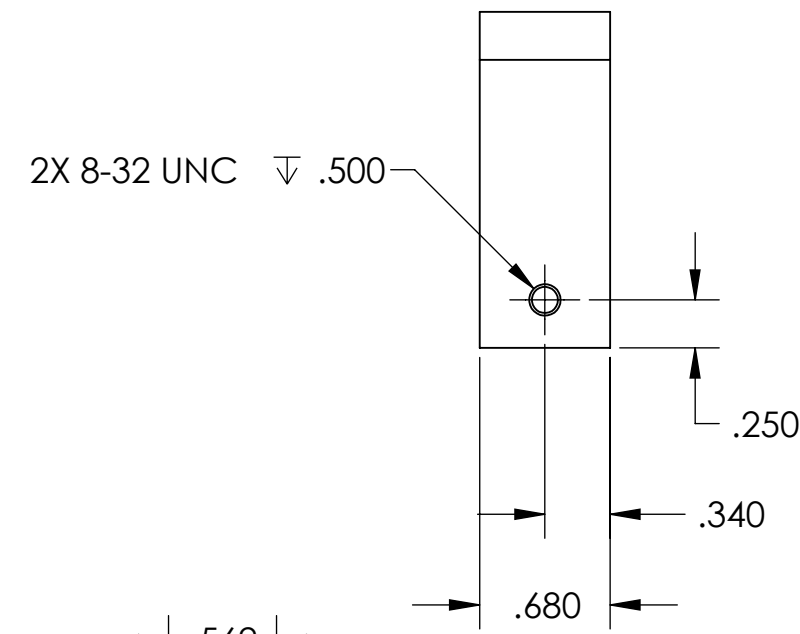
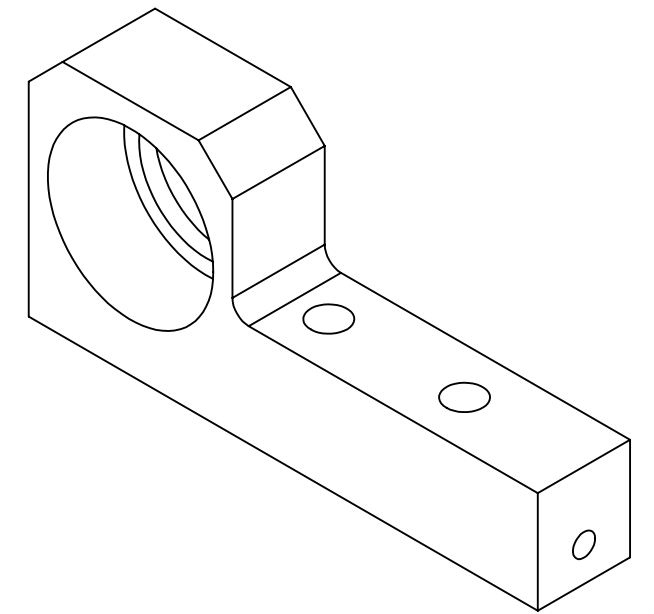
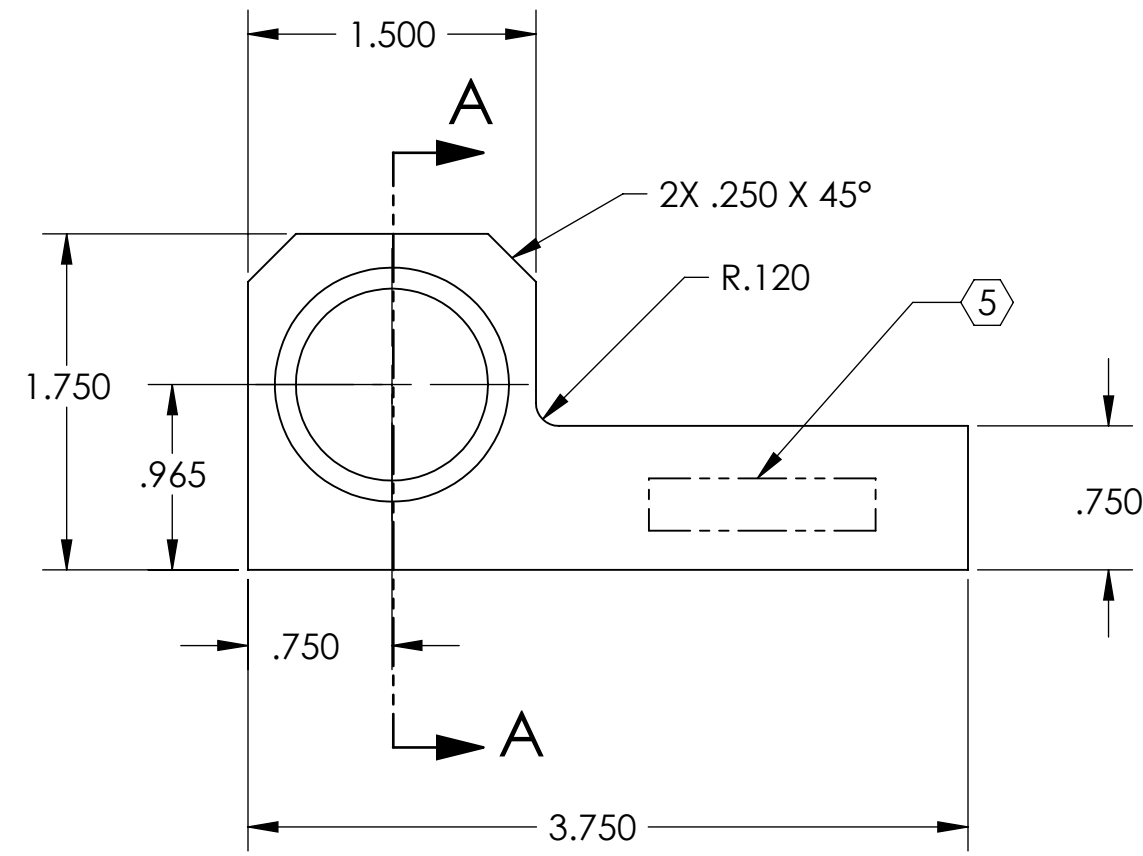
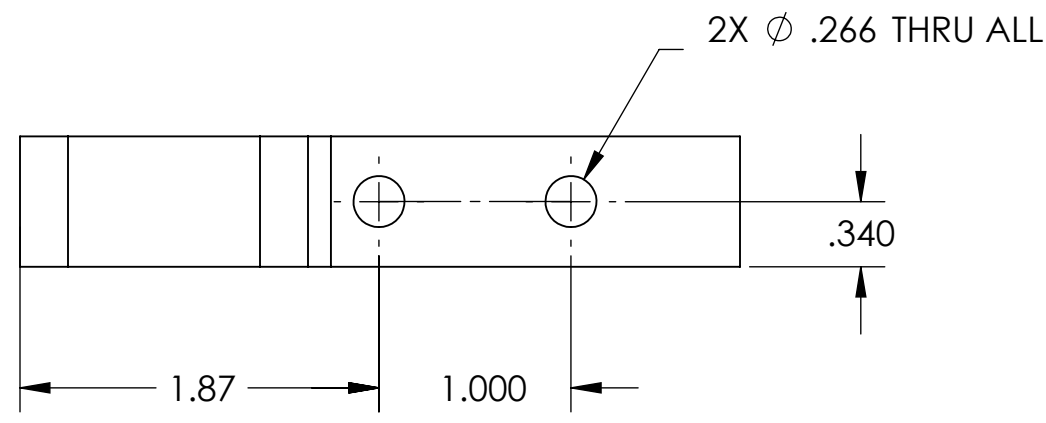
NEXT ASSY: **D1001664**

PART NAME				GEAR COVER SUPPORT, HAM STRUCTURE LIFT	
DESIGNER	K. BUCKLAND	25 M1Y 2010	SIZE	DWG. NO.	
DRAFTER	L. OLMO	7 JUNE 2010	B	D1001778	
CHECKER	K. BUCKLAND	22 JUL 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
APPROVAL					

D1001777 WORM SHAFT BEARING SUPPORT, HAM STRUCTURE LIFT, CALIGO, SUS, PART PDM REV: X-005, DRAWING PDM REV: X-003

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	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



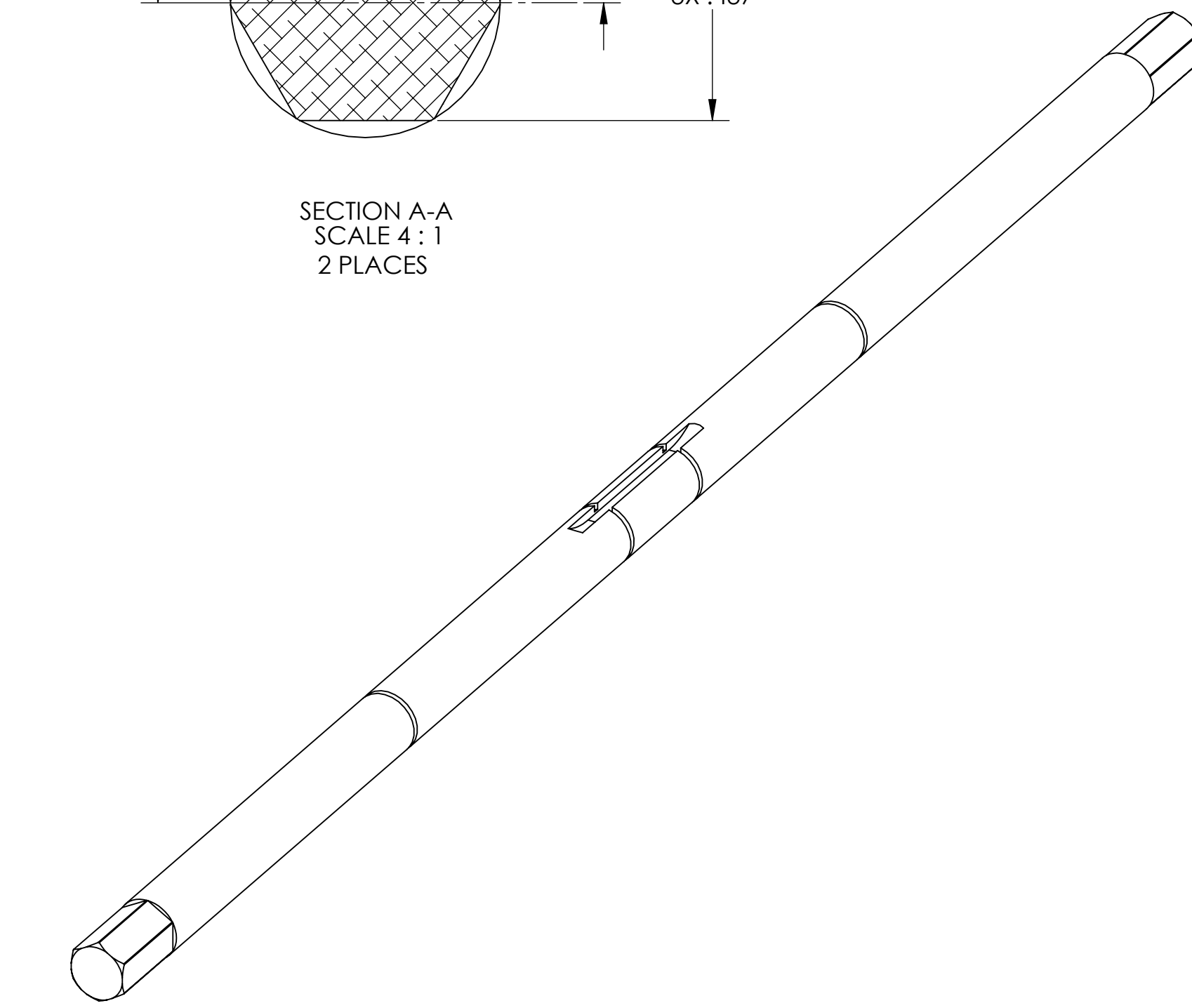
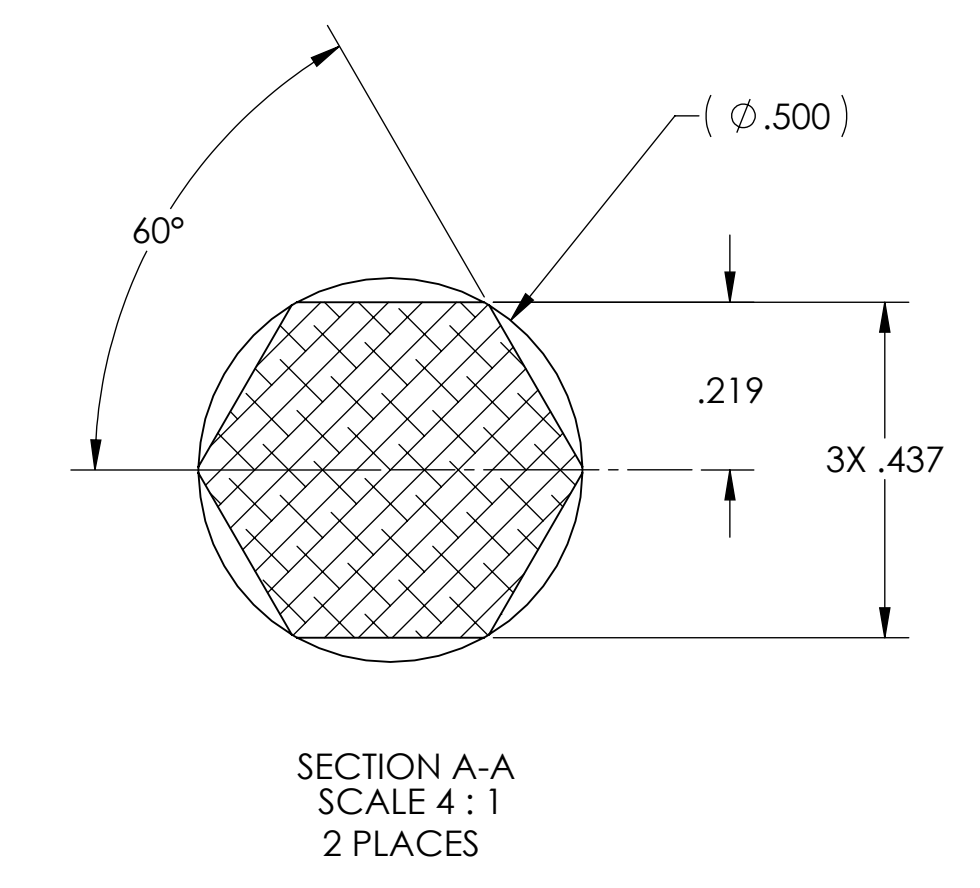
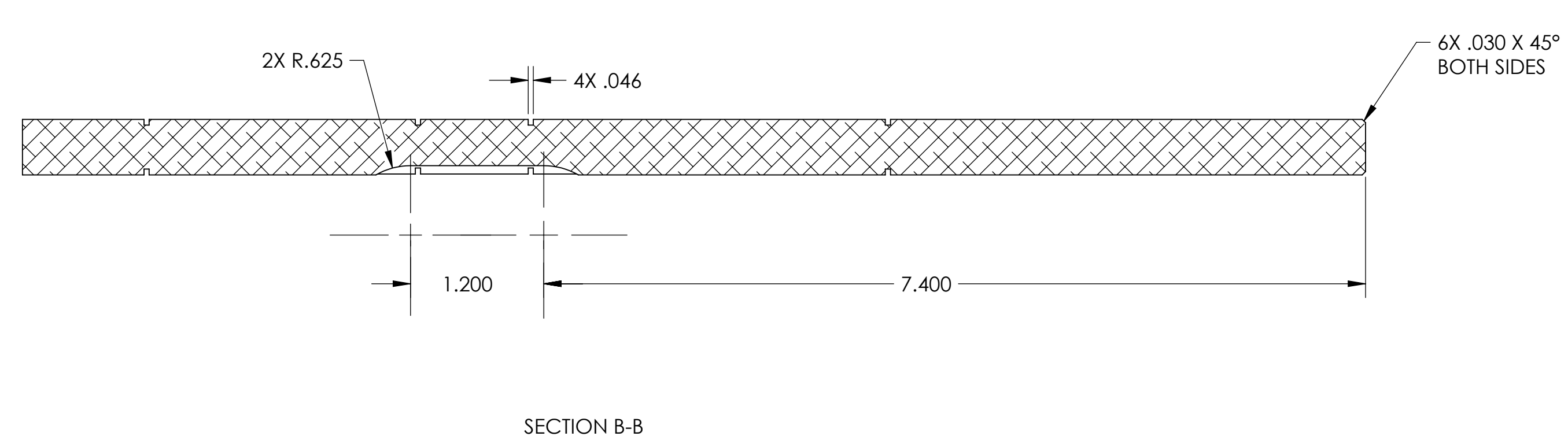
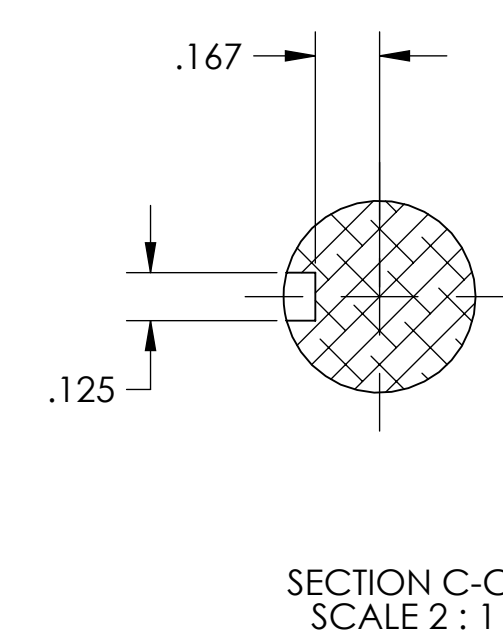
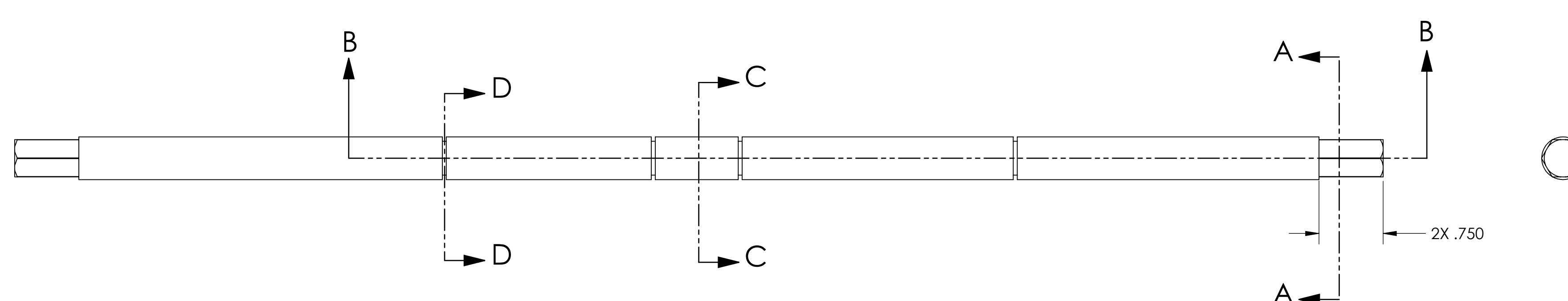
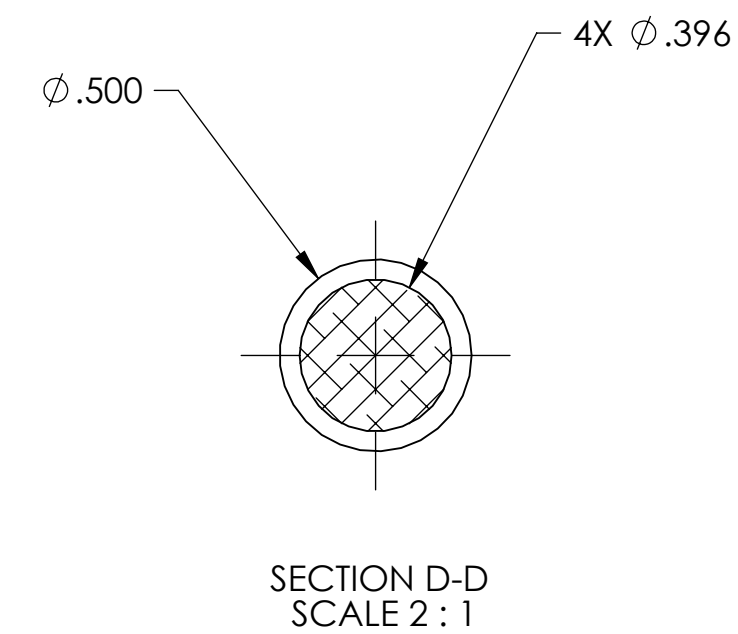
NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005 ANGULAR ± 0.5°	
MATERIAL	6061-T6 Al
FINISH	32 µinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	PART NAME	
	WORM SHAFT BEARING SUPPORT, HAM STRUCTURE LIFT	
	SYSTEM	SUB-SYSTEM
ADVANCED LIGO	SUS	
NEXT ASSY	D1001664	

DESIGNER	K. BUCKLAND	24 MAY 2010	SIZE	DWG. NO.	REV.
DRAFTER	L. OLMOS	15 JUNE 2010	B	D1001777	v1
CHECKER	K. BUCKLAND	22 JUL 2010	SCALE:	1:1	PROJECTION:
APPROVAL					SHEET 1 OF 1

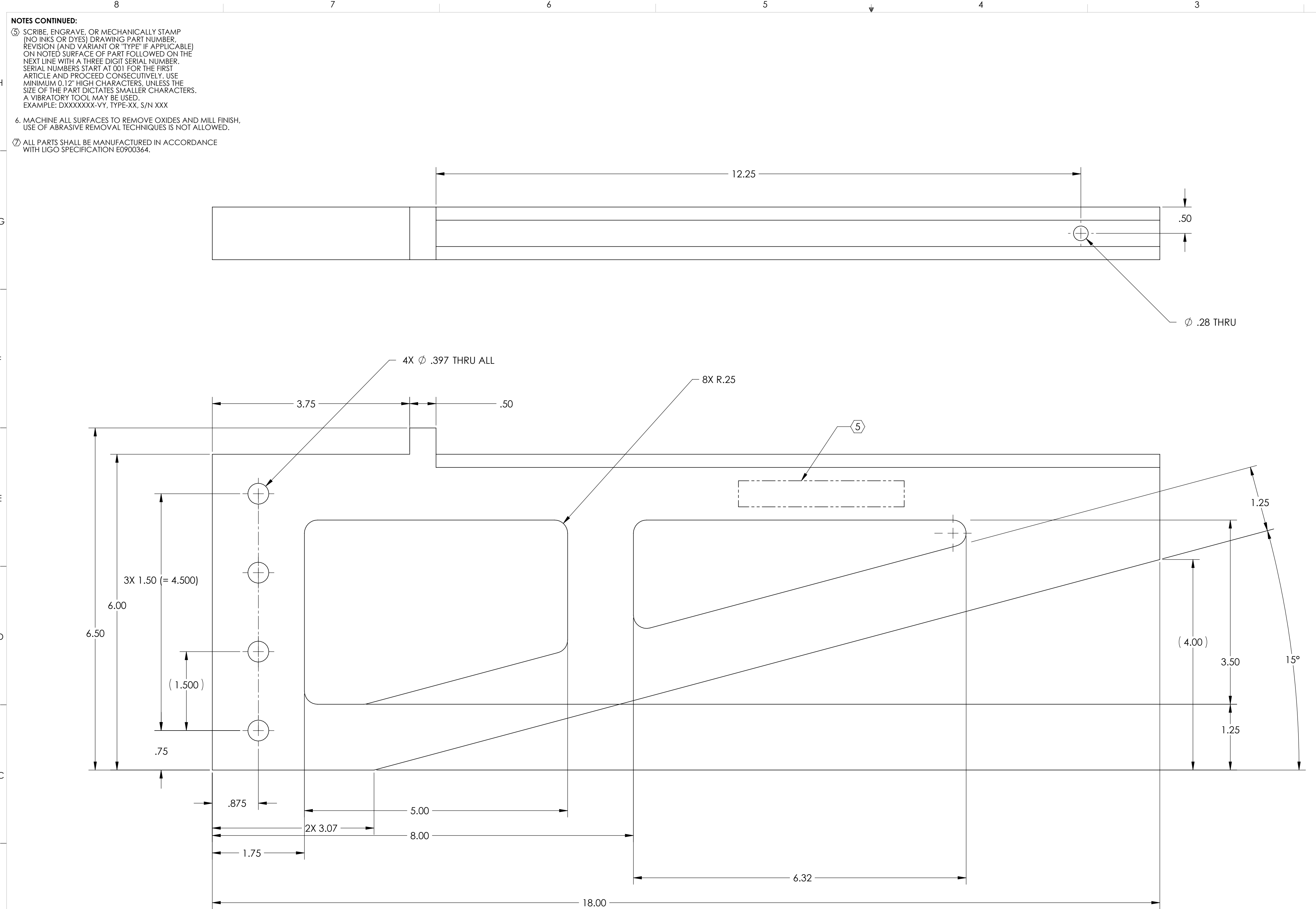
NOTES CONTINUED:
 5. BAG ALL ITEMS AND MARK OR TAG EACH BAG WITH DRAWING NUMBER, REVISION, AND QUANTITY. EXAMPLE: DXXXXXX-VV, QTY: TBD.
 6. ALL PARTS SHALL BE MANUFACTURED IN ACCORDANCE WITH LIGO SPECIFICATION E0900364.

REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-

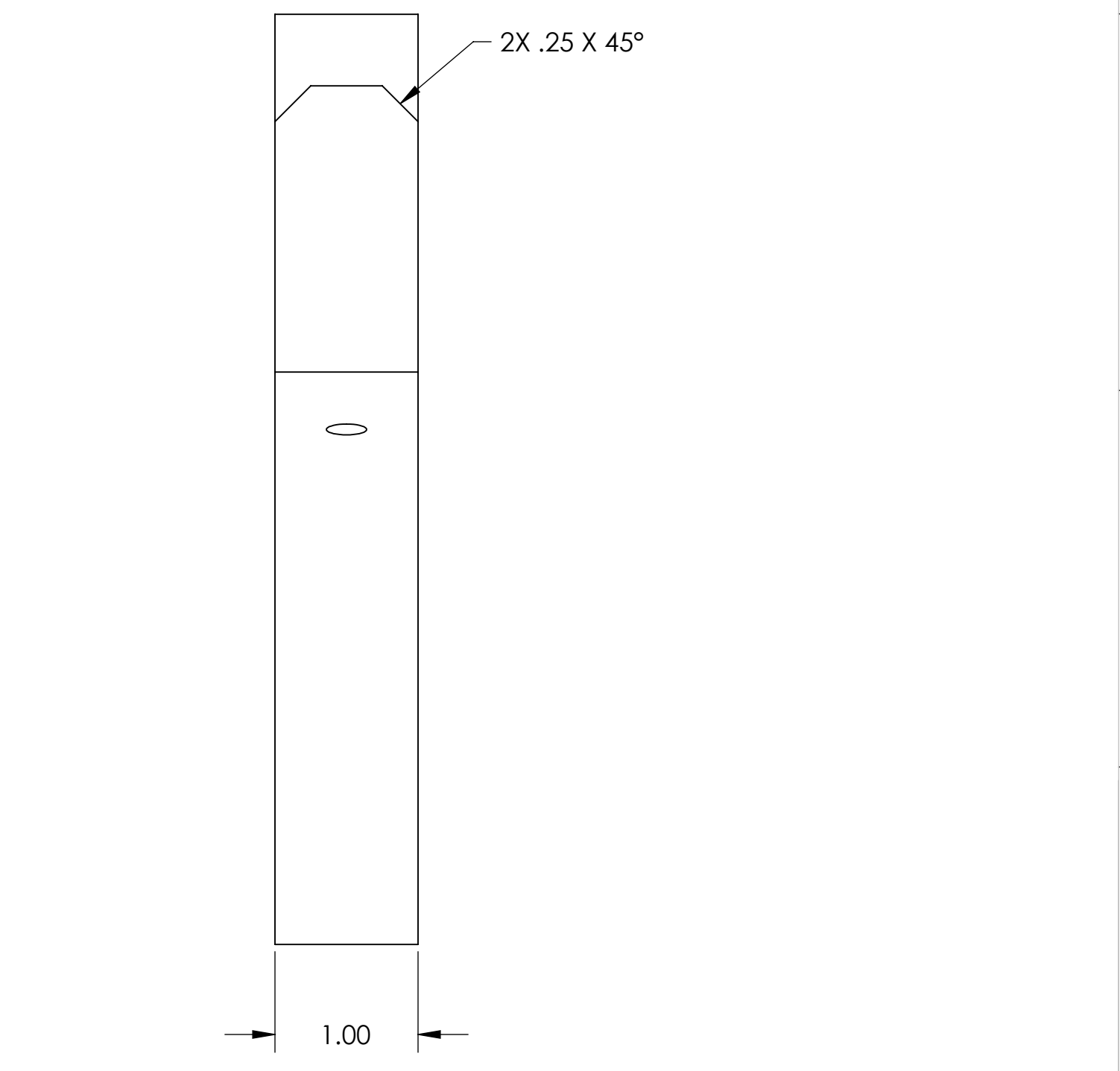
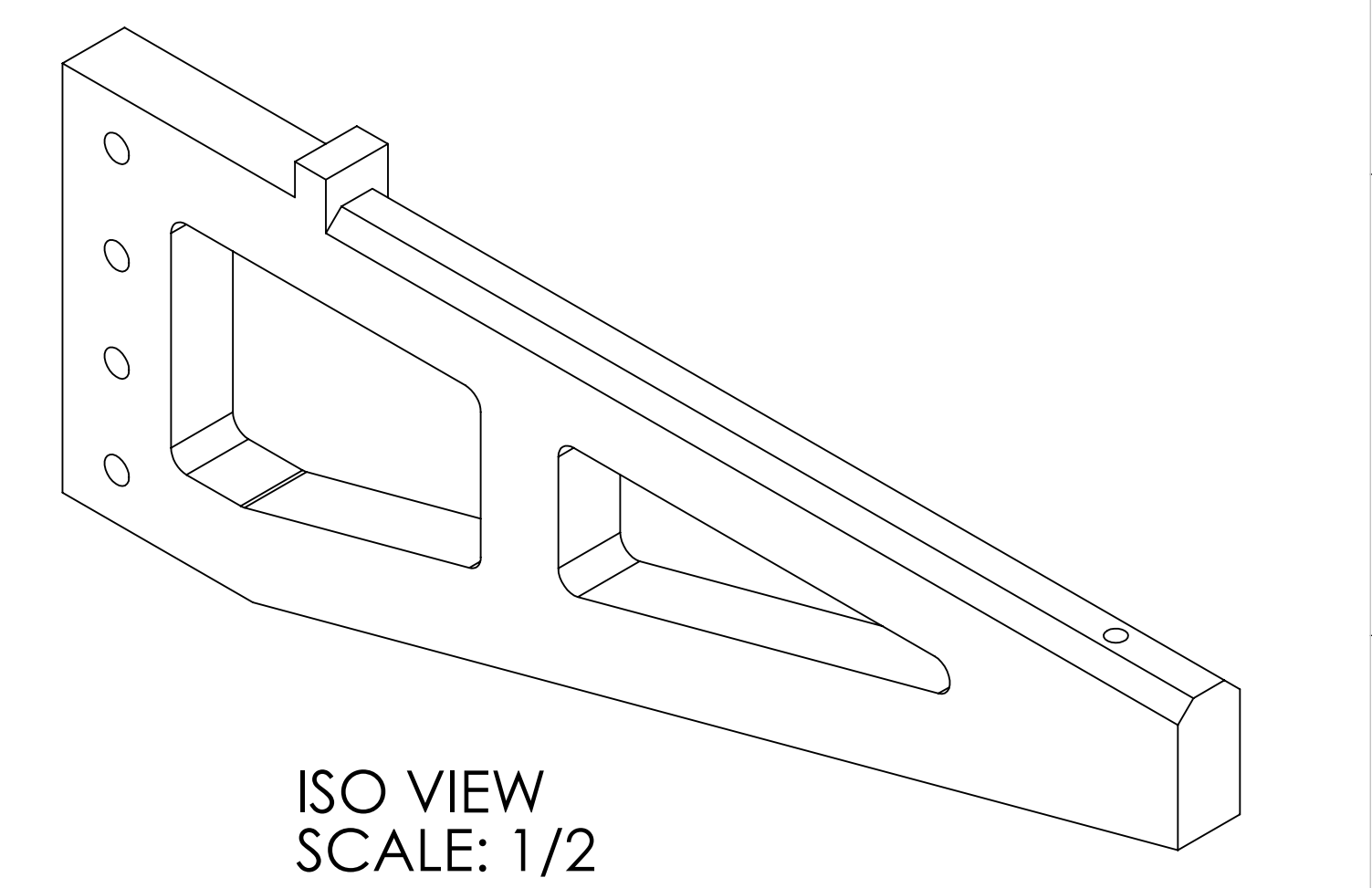


DIMENSIONS ARE IN INCHES		TOLERANCES:		MATERIAL		FINISH		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
.XX	± .01	304 SSSL	32 μinch	1. INTERPRET DRAWING PER ASME Y14.5-1994.	ADVANCED LIGO	SUS	WORM SHAFT, HAM STRUCTURE LIFT	DESIGNER	K. BUCKLAN	16 JUNE 2010	SIZE	DWG. NO.	REV.
.XXX	± .005			2. REMOVE ALL SHARP EDGES, R.02 MIN.				DRAFTER	L. OLMOS	16 JUNE 2010	D	D1001776	V1
ANGULAR	± 0.5°			3. DO NOT SCALE FROM DRAWING.				CHECKER	K. BUCKLAND	22 JUL 2010			
				4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.				APPROVAL			SCALE: 1:1	PROJECTION:	SHEET 1 OF 1

D:\001776\WORM SHAFT_HAM STRUCTURE LIFT.dwg, SUS, PART PDM REV: X-003, DRAWING PDM REV: X-002



REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



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

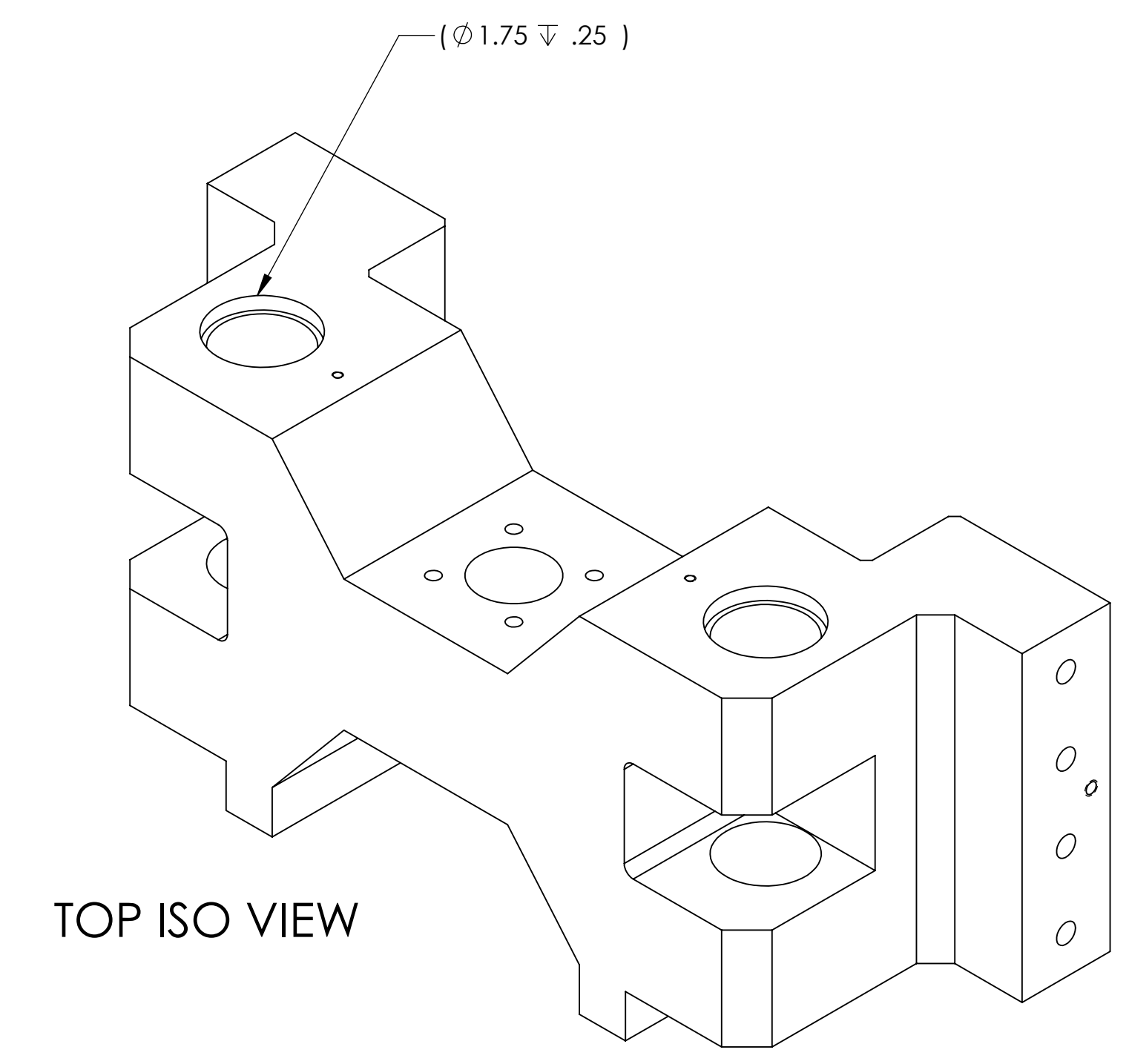
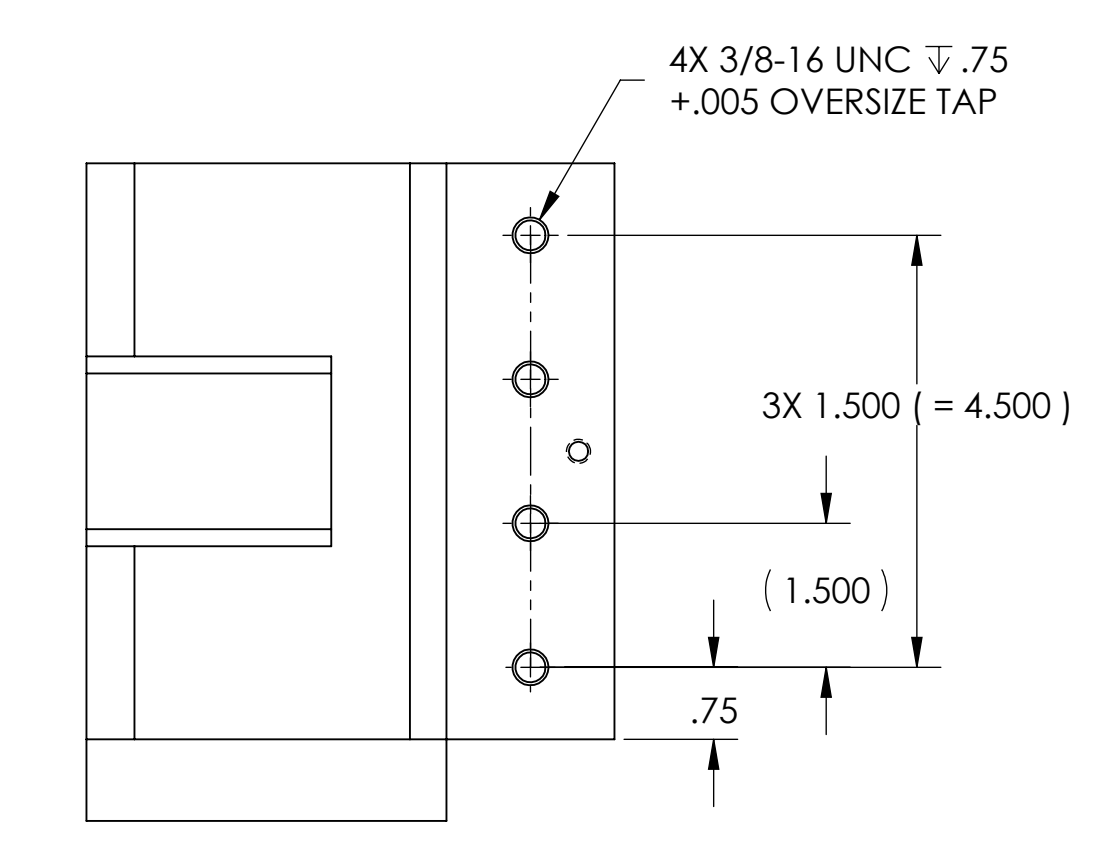
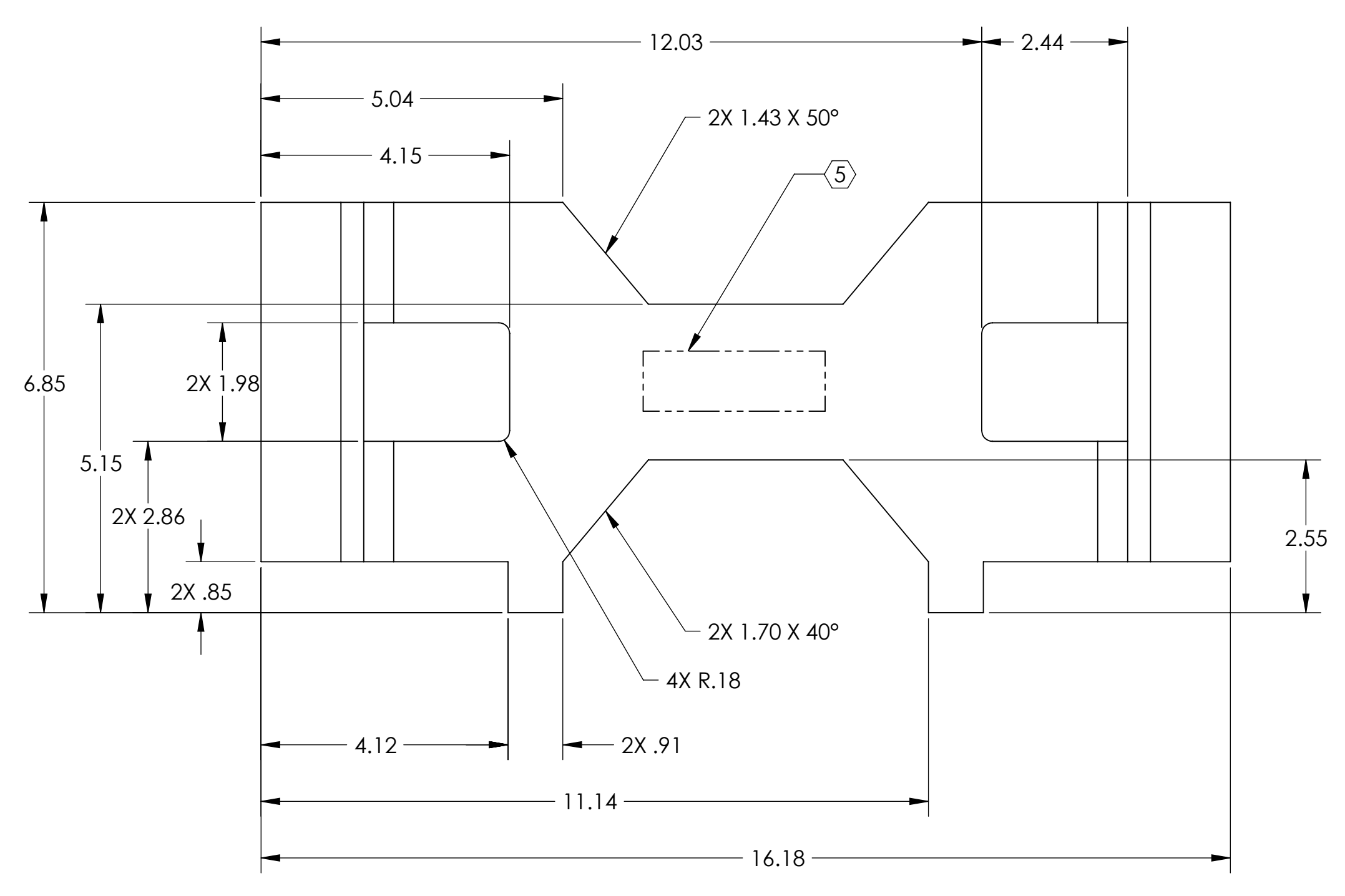
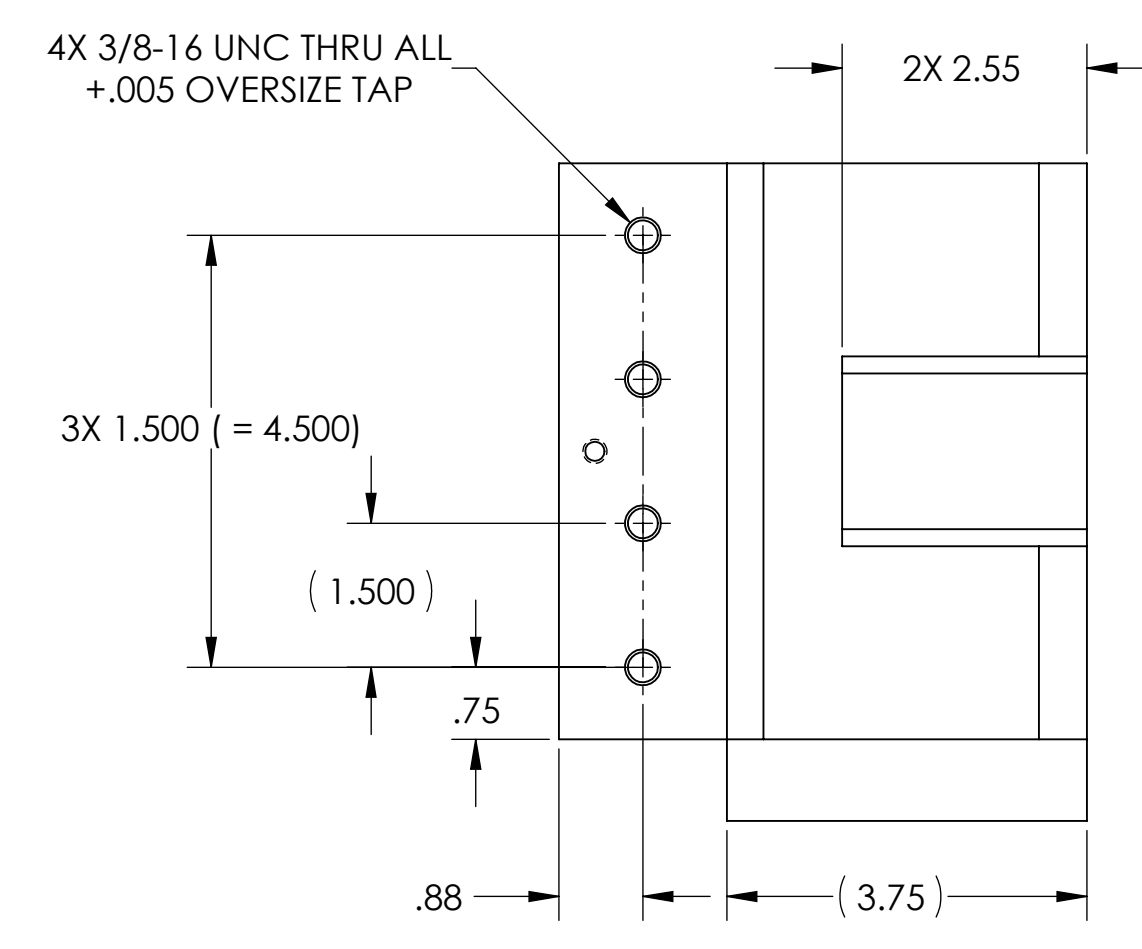
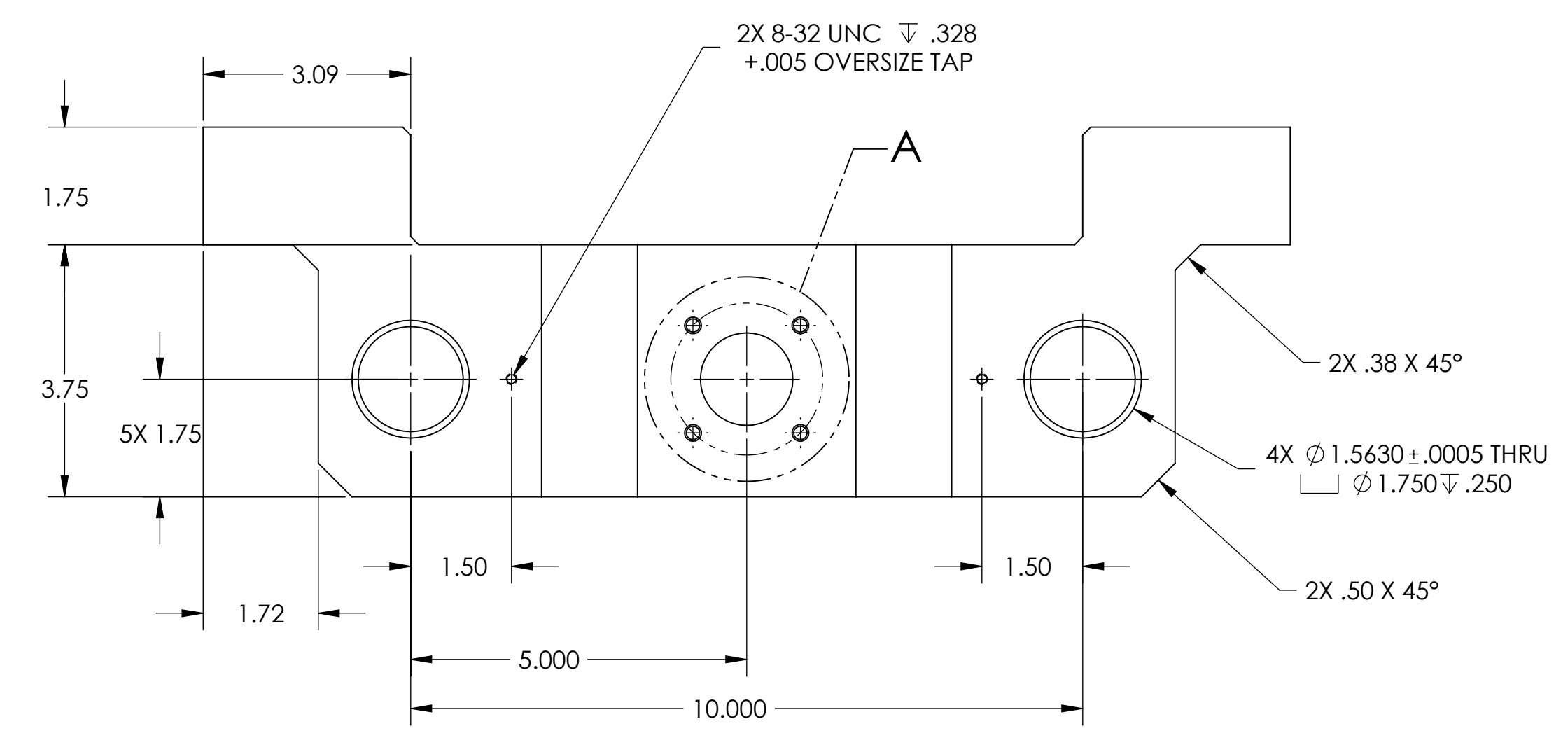
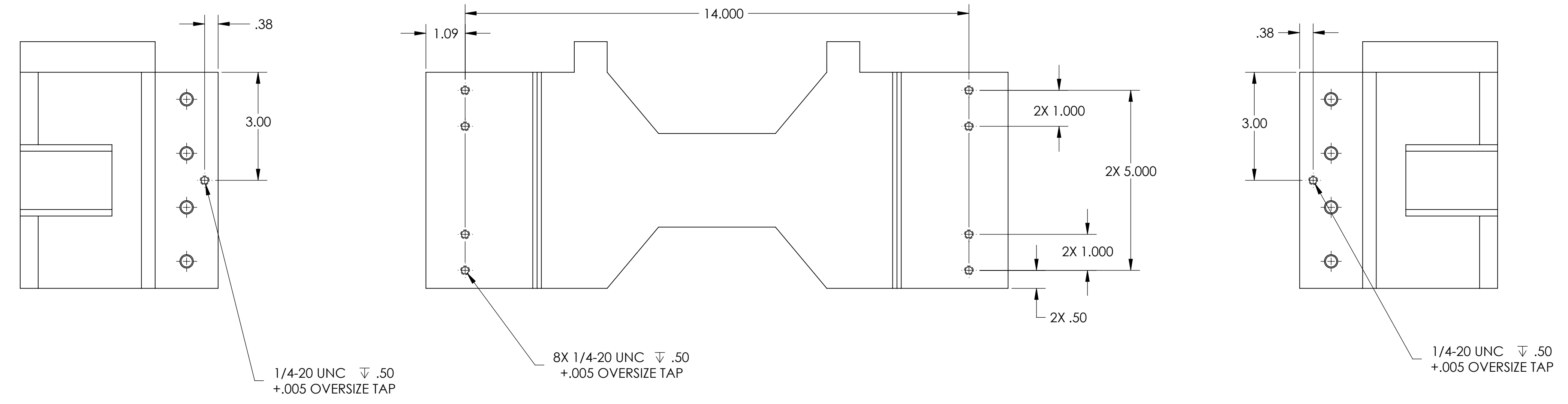
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

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

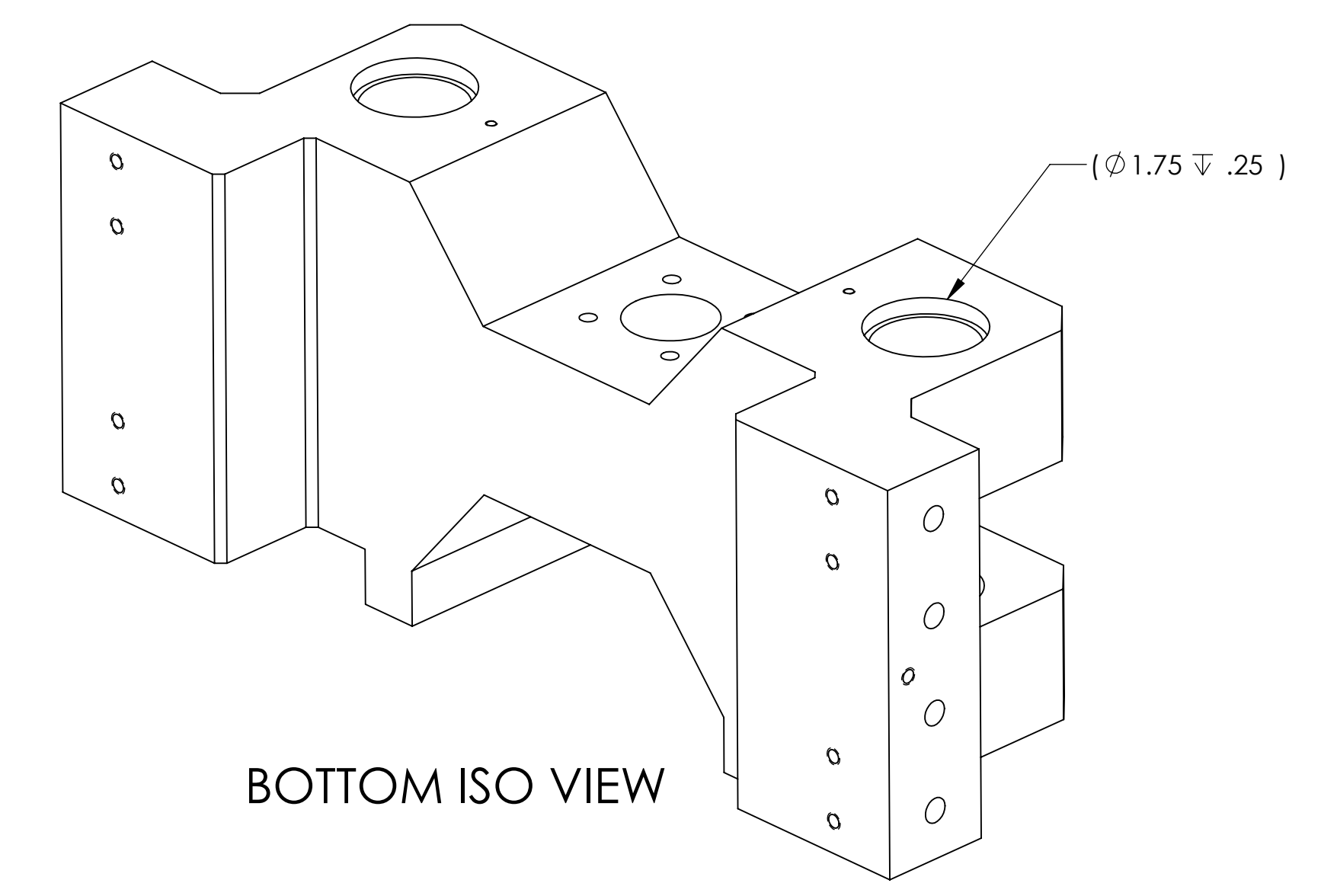
DIMENSIONS ARE IN INCHES		TOLERANCES: .XX ± .01 .XXX ± .005		ANGULAR ± .5°		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, R.02 MIN. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		MATERIAL 6061-T6 Al		FINISH 32μinch		LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME YOKE ARM, HAM STRUCTURE LIFT	
SYSTEM ADVANCED LIGO		SUB-SYSTEM SUS		NEXT ASSY D1001664		DESIGNER K. BUCKLAND		DATE 12 APR 2010		SIZE D		DWG. NO. D1001774		REV. v1	
APPROVAL		SCALE: 1:1		PROJECTION:		SHEET 1 OF 1									

D1001774 YOKE ARM, HAM STRUCTURE LIFT, LIGO, SUS, PART PDM REV: X.010, DRAWING PDM REV: X.012

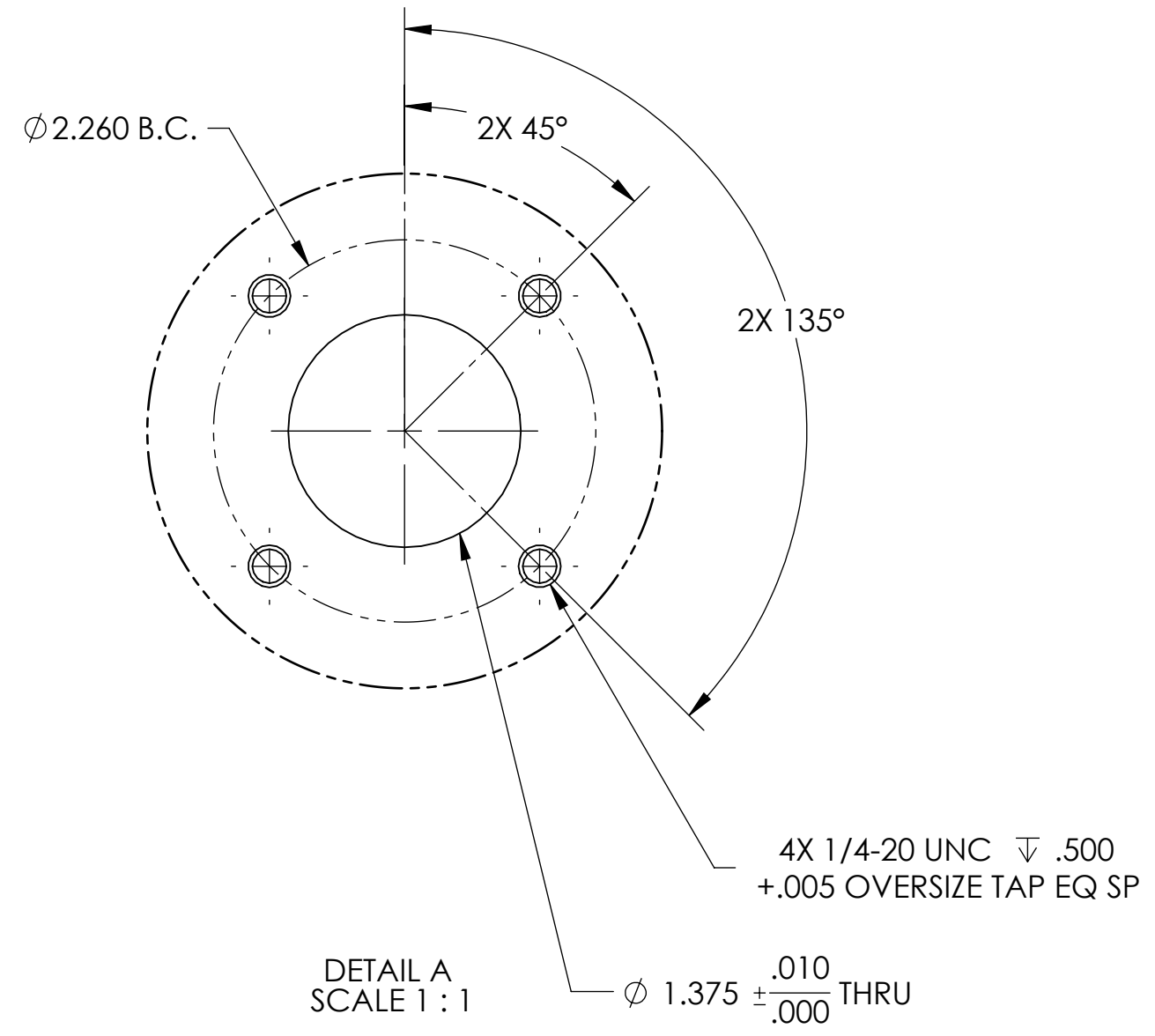
NOTES CONTINUED:
 5. SCRIBE, ENGRAVE, OR MECHANICALLY STAMP (NO INKS OR DYES) DRAWING PART NUMBER, REVISION (AND VARIANT OR TYPE IF APPLICABLE) ON NOTED SURFACE OF PART FOLLOWED ON THE NEXT LINE WITH A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST ARTICLE AND PROCEED CONSECUTIVELY. 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.



TOP ISO VIEW



BOTTOM ISO VIEW



2 PLACES

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME	
DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .01 .XXX ± .005 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.		YOKO, HAM STRUCTURE LIFT	
MATERIAL: 6061-T6 Al		FINISH: 32 μinch		NEXT ASSY: D1001664	
SYSTEM: ADVANCED LIGO		SUB-SYSTEM: SUS		DESIGNER: K. BUCKLAND 12 APR 2010 DRAFTER: L. OLMOS 21/5/2010 CHECKER: K. BUCKLAND 22 JUL 2010 APPROVAL:	
SCALE: 1:2		PROJECTION:		DWG. NO.: D1001773 REV.: v1	
SHEET 1 OF 1		SHEET 1 OF 1		SHEET 1 OF 1	

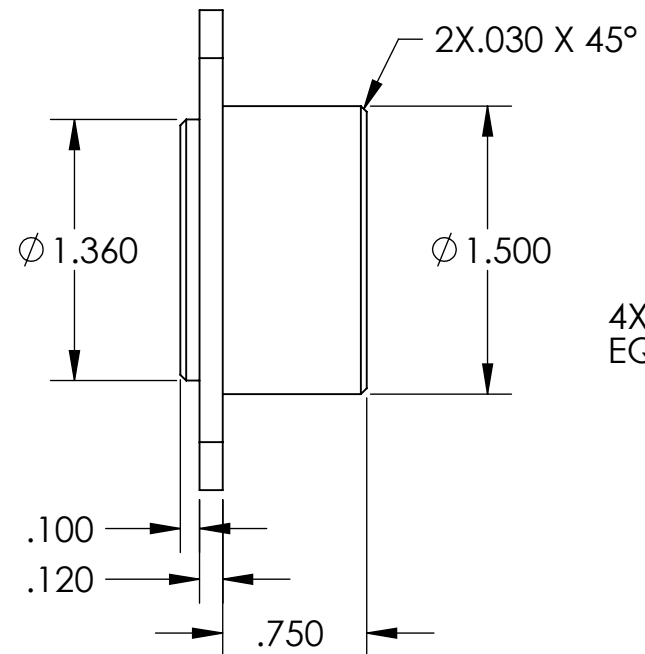
D1001772 BELLOWS SUPPORT, HAM STRUCTURE LIFT, αLIGO, SUS, PART PDM REV: X-006, DRAWING PDM REV: X-004

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

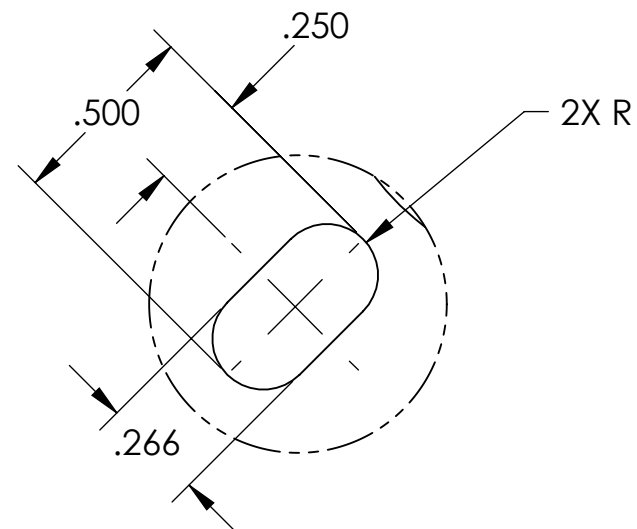
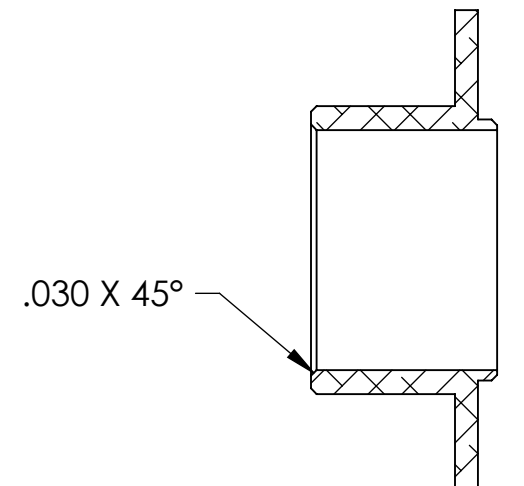
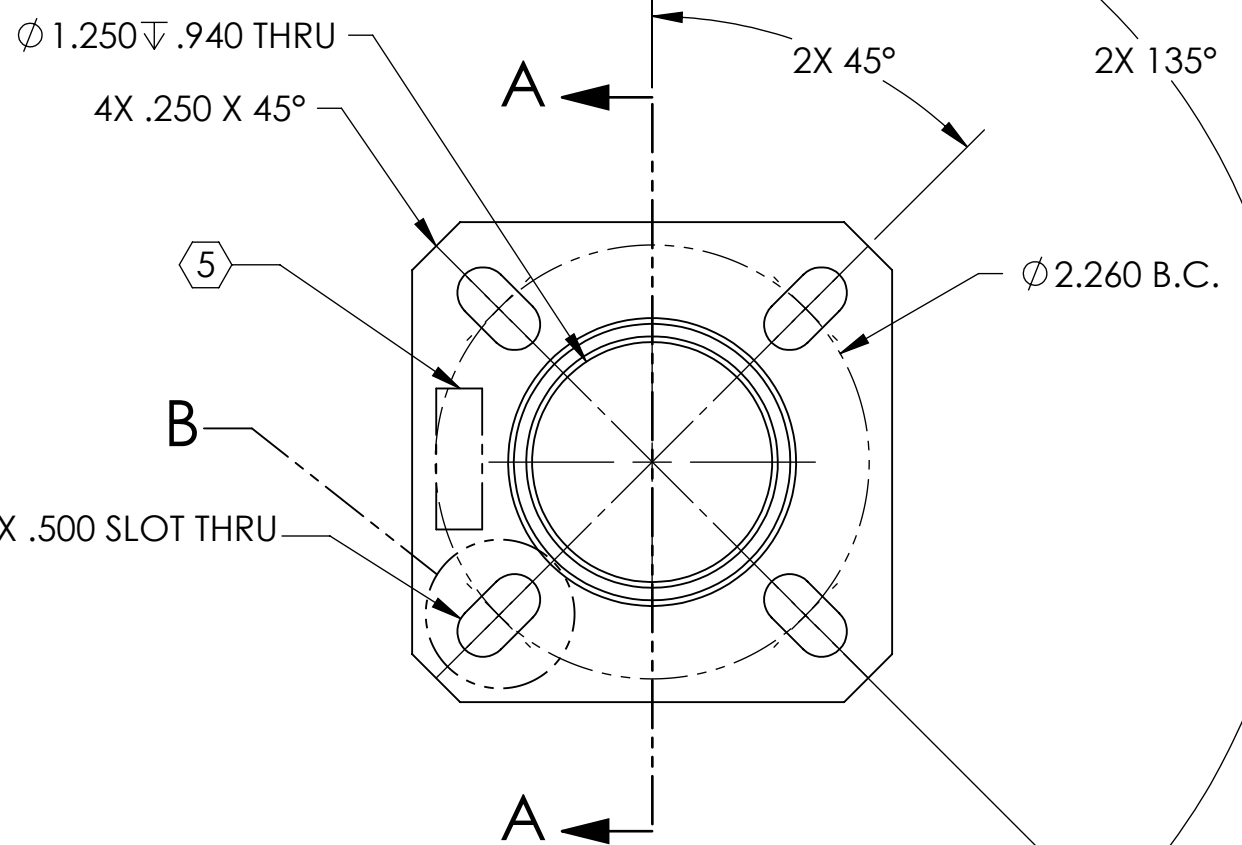
6. MACHINE ALL SURFACES TO REMOVE OXIDES AND MILL FINISH. USE OF ABRASIVE REMOVAL TECHNIQUES IS NOT ALLOWED.

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

REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



4X .266 X .500 SLOT THRU EQ.SP



DETAIL B
SCALE 2 : 1
4 PLACES

NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)				LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME					
DIMENSIONS ARE IN INCHES				ADVANCED LIGO		BELLOWS SUPPORT, HAM STRUCTURE LIFT					
TOLERANCES: .XX $\pm .01$.XXX $\pm .005$				SUB-SYSTEM SUS		DESIGNER	K. BUCKLAND	26 APR 2010	SIZE	DWG. NO.	REV.
ANGULAR $\pm .5^\circ$				MATERIAL 6061-T6 Al		DRAFTER	L.OLMOS	25 MAY 2010	B	D1001772	v1
				FINISH 32 μ inch		CHECKER	K. BUCKLAND	22 JUL 2010	SCALE: 1:1	PROJECTION:	SHEET 1 OF 1
				NEXT ASSY D1001664		APPROVAL					

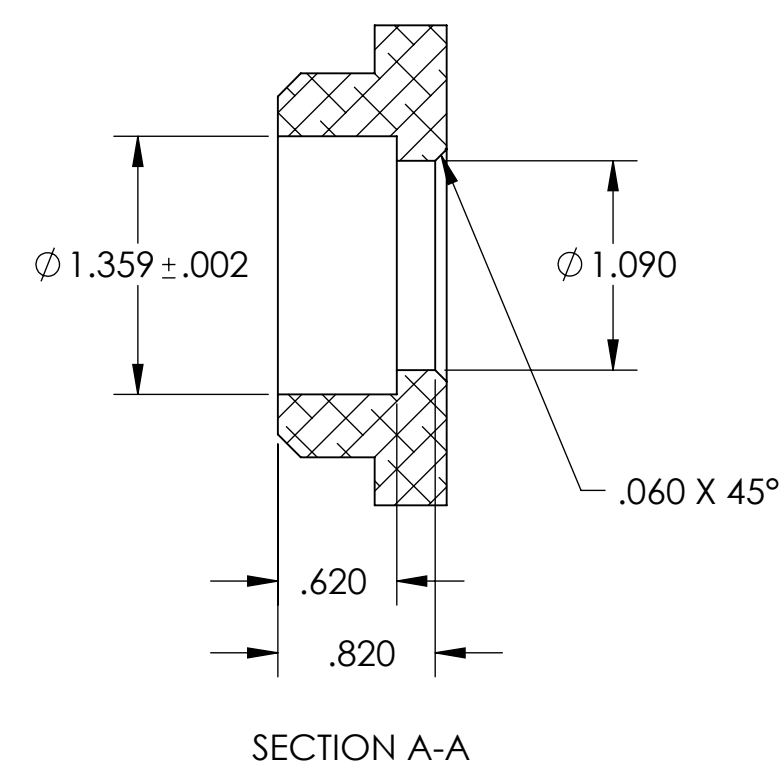
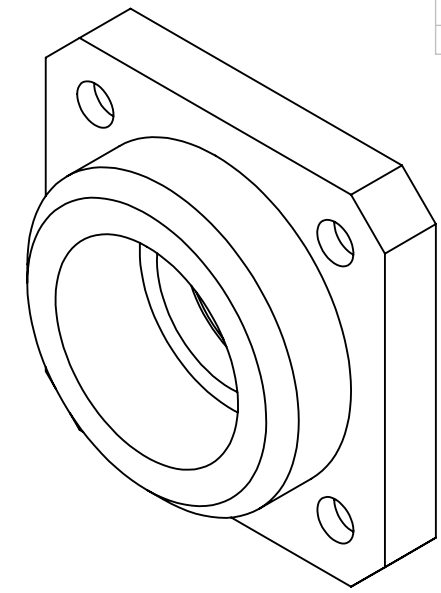
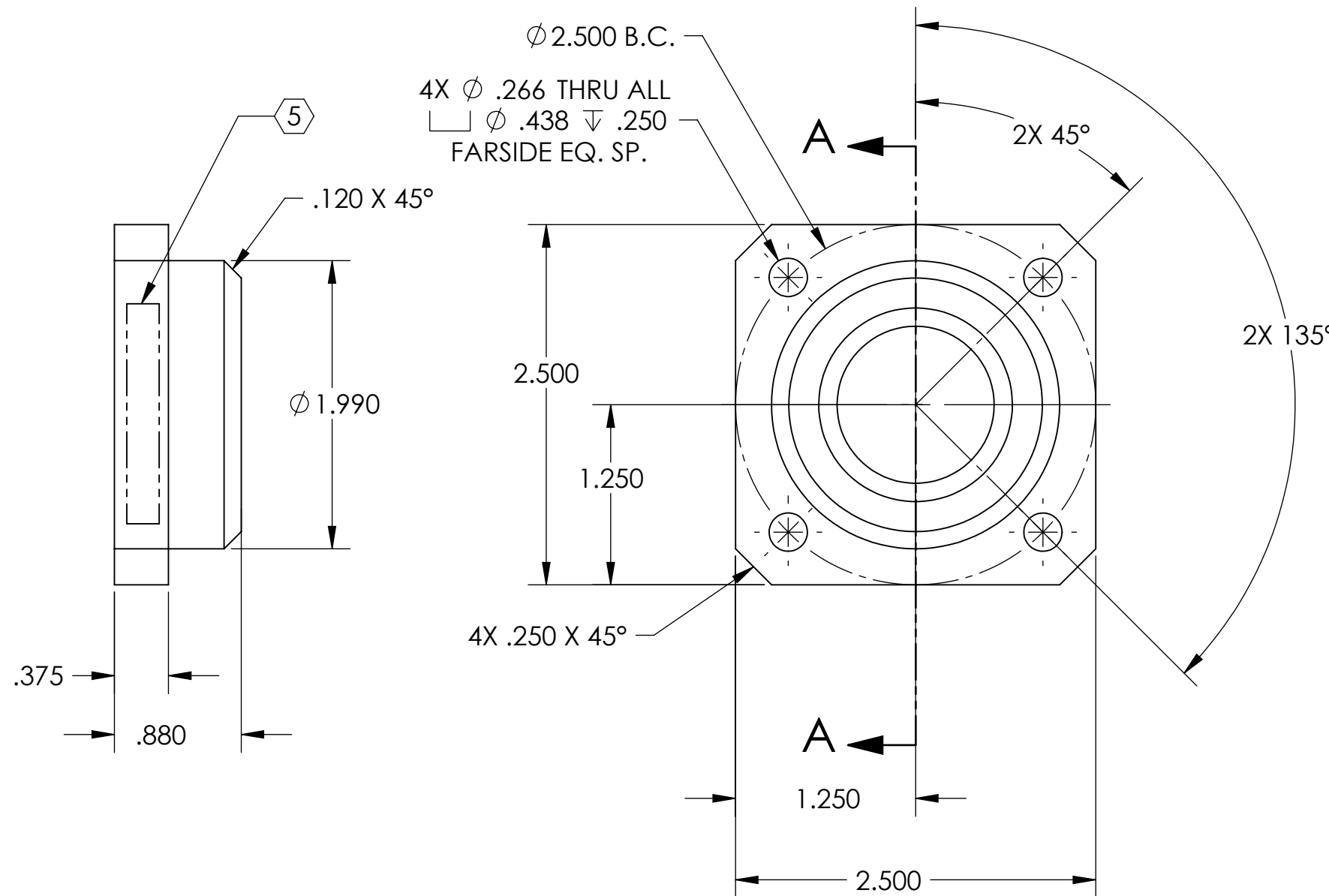
D1001771 TOP BEARING SUPPORT, HAM STRUCTURE LIFT, αLIGO, SUS, PART PDM REV: X-006, DRAWING PDM REV: X-003

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	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)	
DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005 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.	
MATERIAL	6061-T6 Al
FINISH	32 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME HAM STRUCTURE LIFT TOP BEARING SUPPORT	
SYSTEM	ADVANCED LIGO	SUB-SYSTEM	SUS
DESIGNER	K. BUCKLAND	14 APR 2010	SIZE DWG. NO.
DRAFTER	L.OLMOS	25 MAY 2010	B
CHECKER	K. BUCKLAND	22 JUL 2010	D1001771
APPROVAL			REV. v1
SCALE: 1:1		PROJECTION:	
		SHEET 1 OF 1	

8 7 6 5 4 3 2 1

D C B A

D C B A

8 7 6 5 4 3 2 1

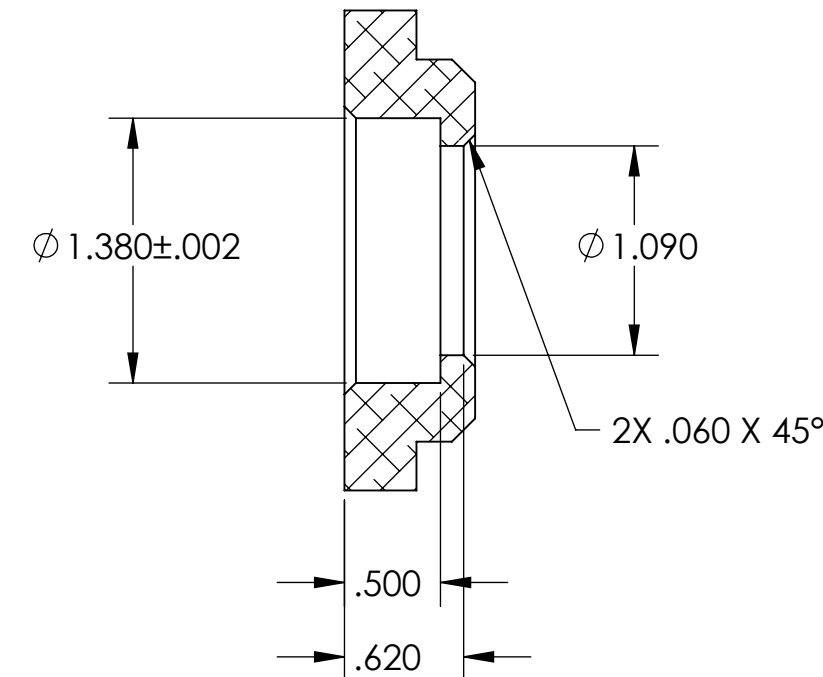
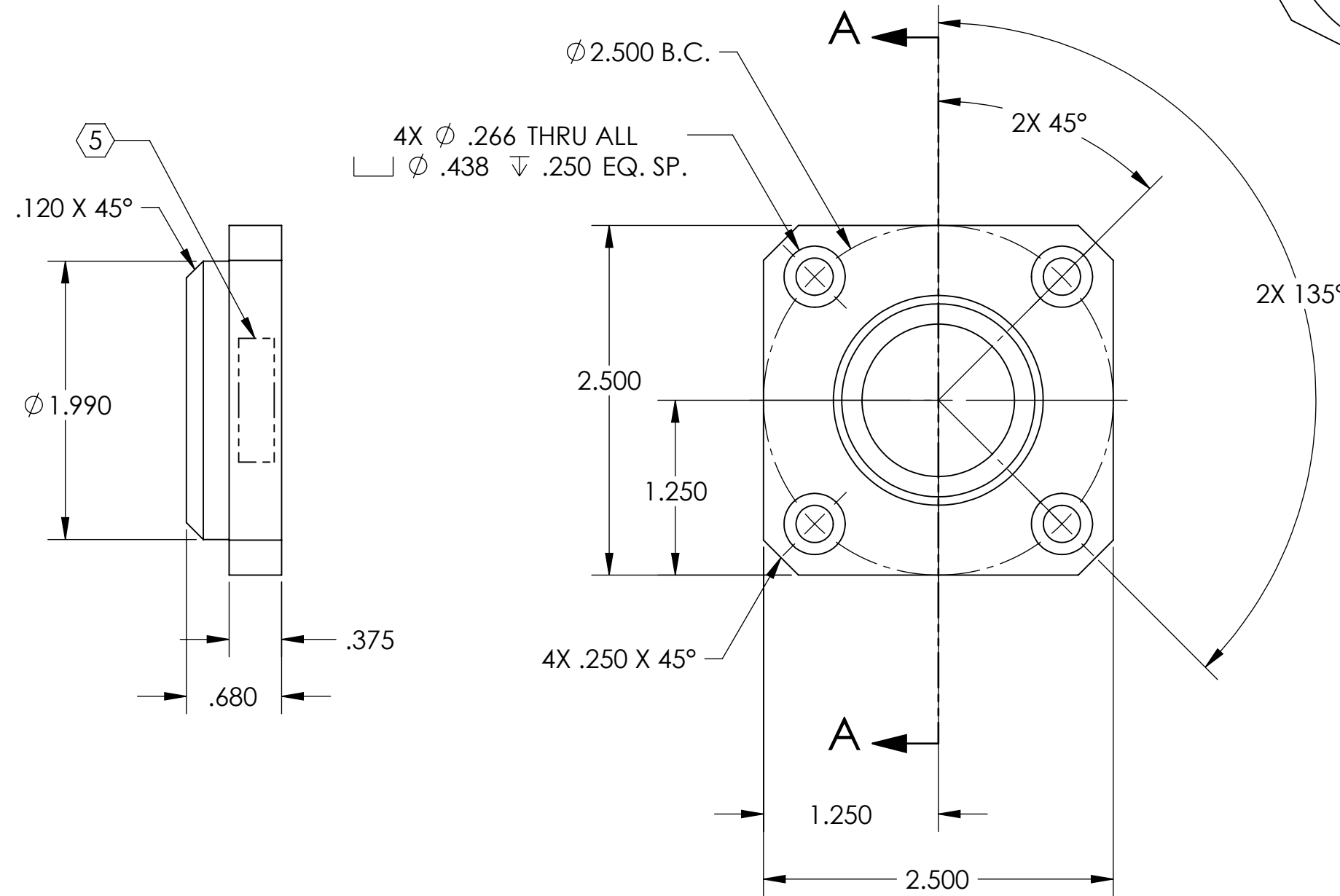
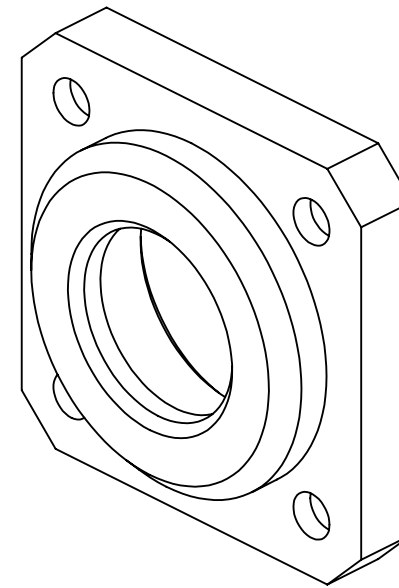
D1001770 BOTTOM BEARING SUPPORT, HAM STRUCTURE LIFT, ALIGO, SUS, PART PDM REV: X-007, DRAWING PDM REV: X-003

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	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE IN INCHES	
TOLERANCES: .XX ± .01 .XXX ± .005	
ANGULAR ± 0.5°	
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.	
MATERIAL	FINISH
6061-T6 Al	32 μinch

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SYSTEM	SUB-SYSTEM
ADVANCED LIGO	SUS
NEXT ASSY	
D1001664	

PART NAME			
BOTTOM BEARING SUPPORT, HAM STRUCTURE LIFT			
DESIGNER	K. BUCKLAND	14 APR 2010	SIZE DWG. NO.
DRAFTER	L. OLMOS	7 JUNE 2010	B
CHECKER	K. BUCKLAND	22 JUL 2010	D1001770
APPROVAL			REV. v1
SCALE: 1:1		PROJECTION:	SHEET 1 OF 1

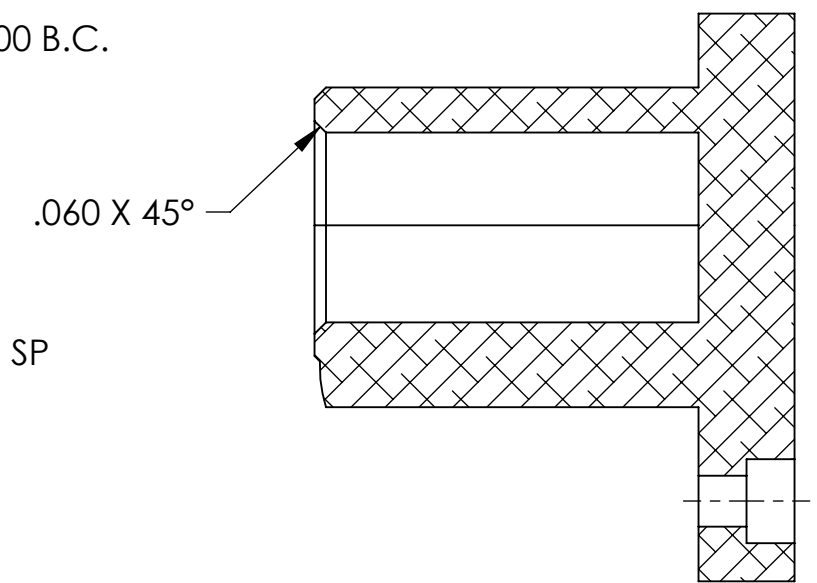
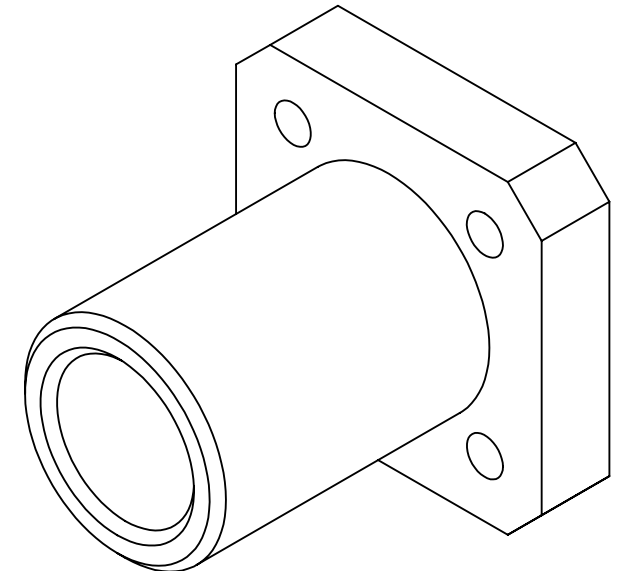
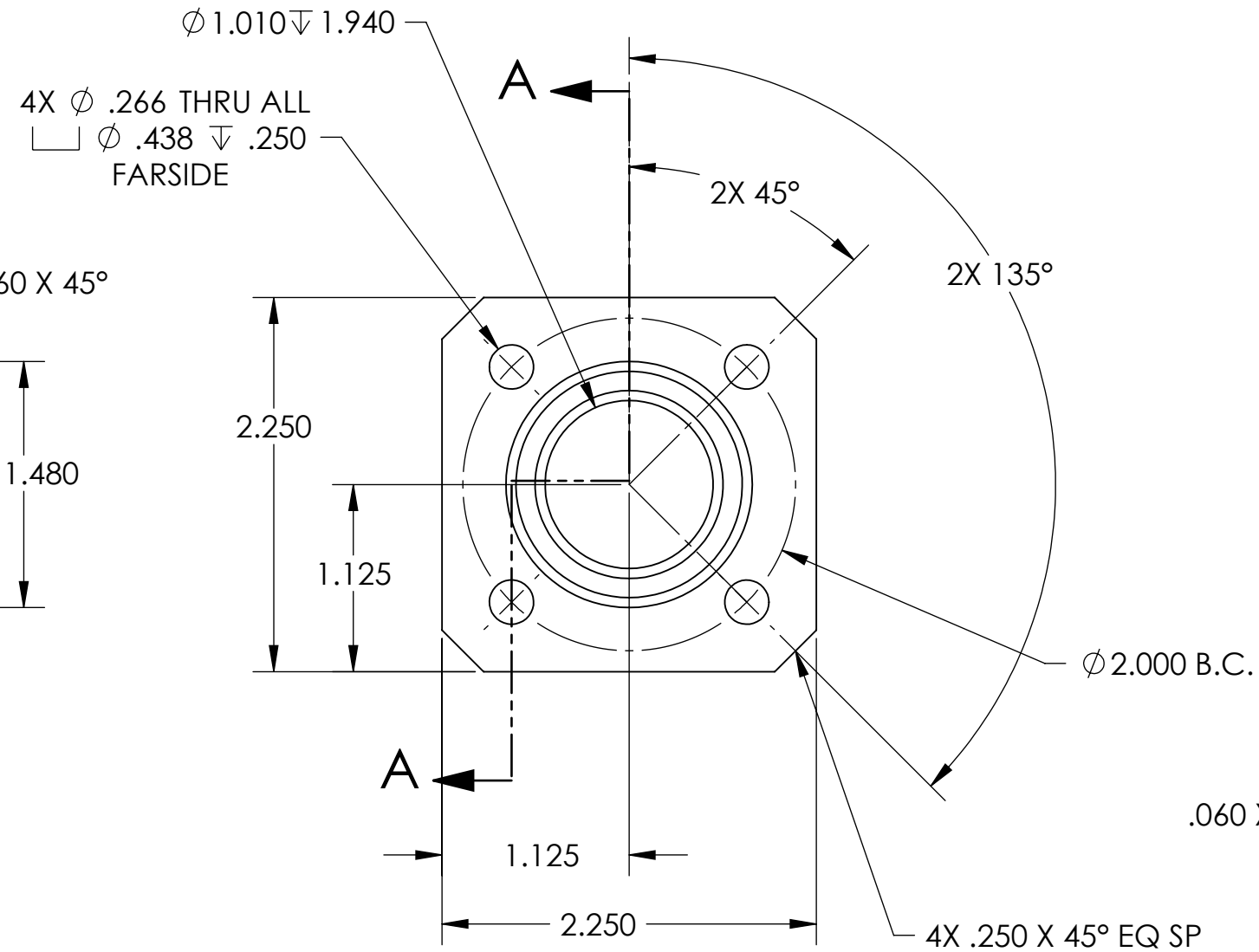
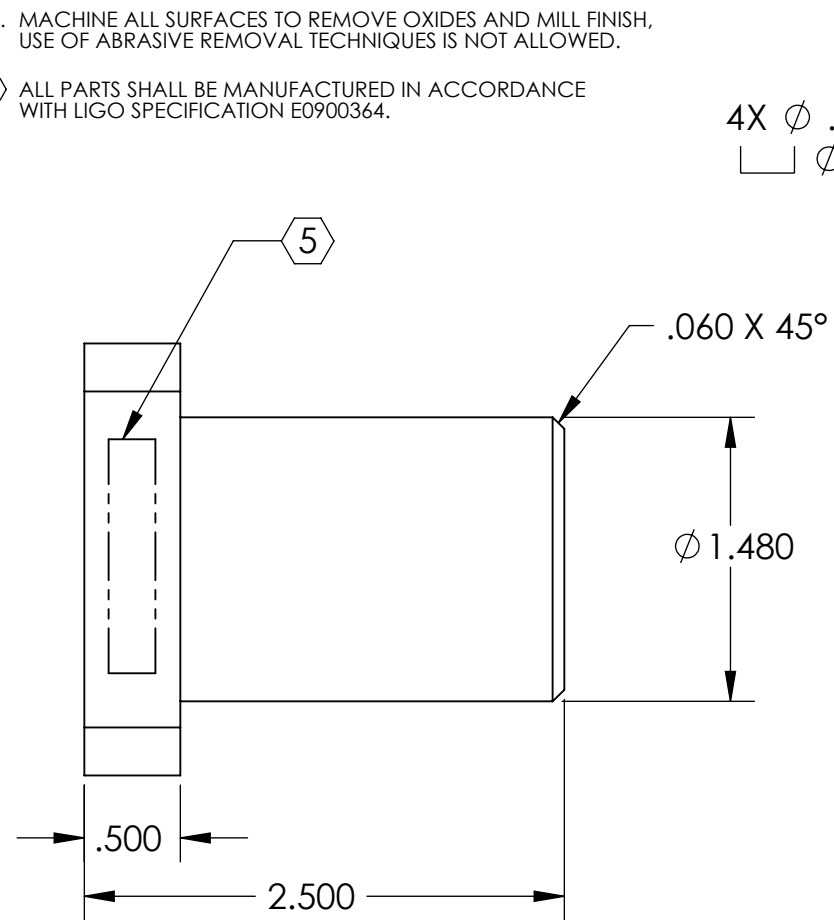
D1001769 GUIDE SHAFT SUPPORT, HAM STRUCTURE SUPPORT, LIGO, SUS, PART PDM REV: X-006, DRAWING PDM REV: X-004

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.

REV.	DATE	DCN #	DRAWING TREE #
V1	22 JUL 2010	E1000270	-
-	-	-	-
-	-	-	-



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		GUIDE SHAFT SUPPORT, HAM STRUCTURE LIFT	
TOLERANCES: .XX ± .01 .XXX ± .005				SUB-SYSTEM SUS		DESIGNER	K. BUCKLAND 9 APR 2010
ANGULAR ± .5°				MATERIAL 304 SSSL		DRAFTER	L.OLMOS 27 MAY 2010
FINISH 32 μinch				NEXT ASSY D1001664		CHECKER	K. BUCKLAND 22 JUL 2010
						APPROVAL	
						SCALE: 1:1	PROJECTION: SHEET 1 OF 1
						SIZE DWG. NO.	B D1001769
						REV.	v1