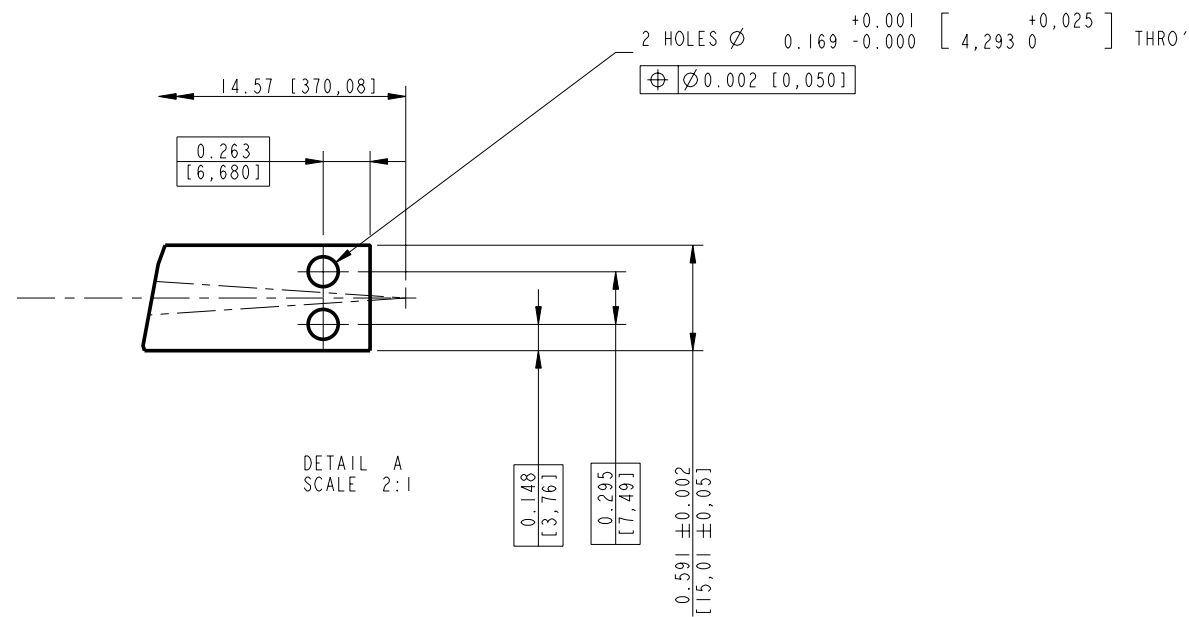
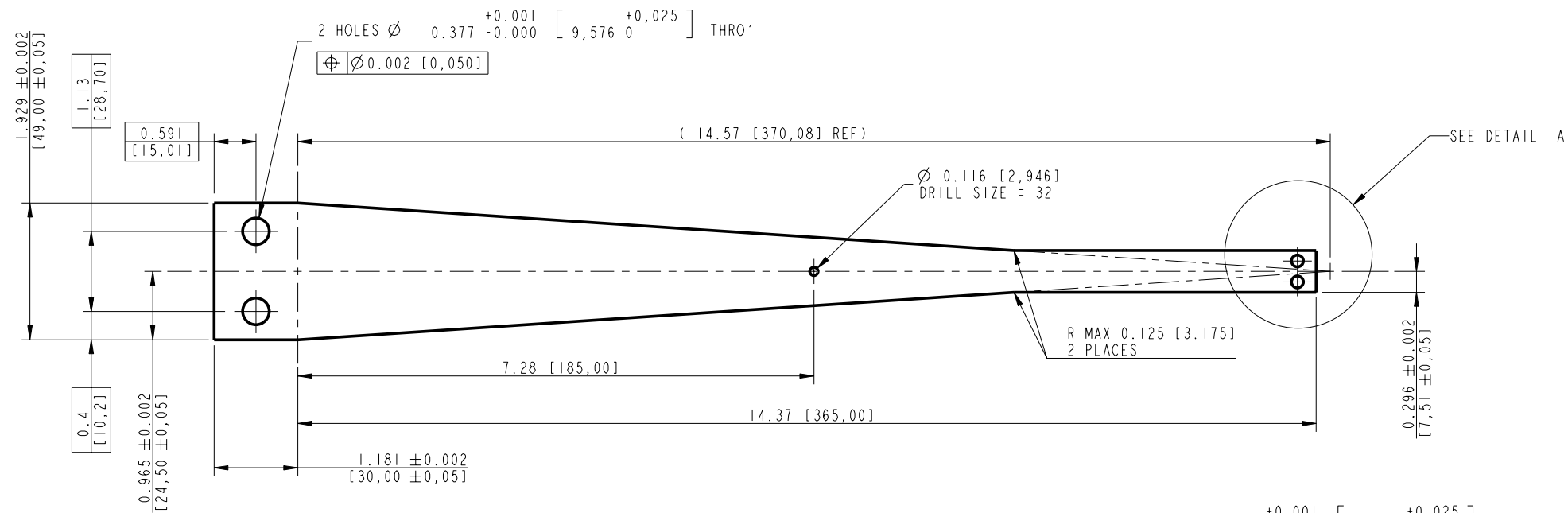
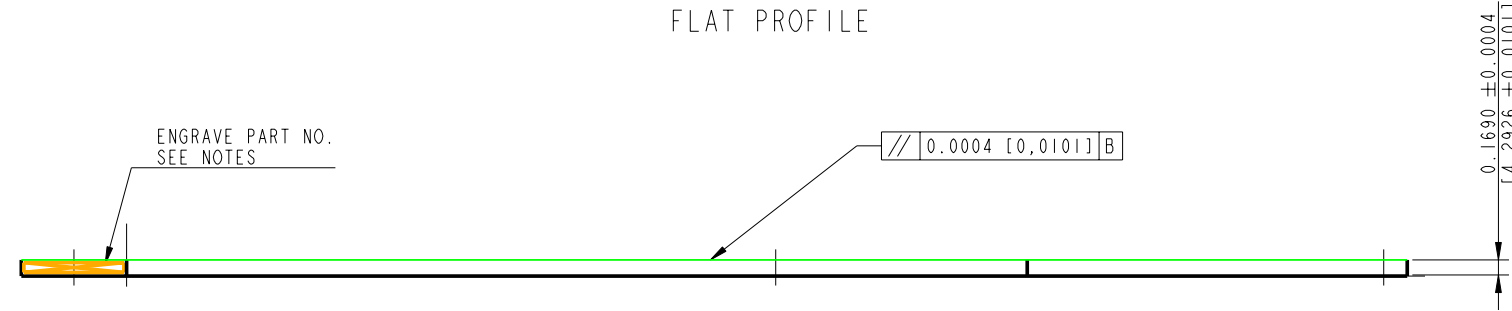


REV.	DATE	DCN #	DRAWING TREE #
A	02-01-04	E040312-01-K	

FLAT PROFILE



DETAIL A
SCALE 2:1

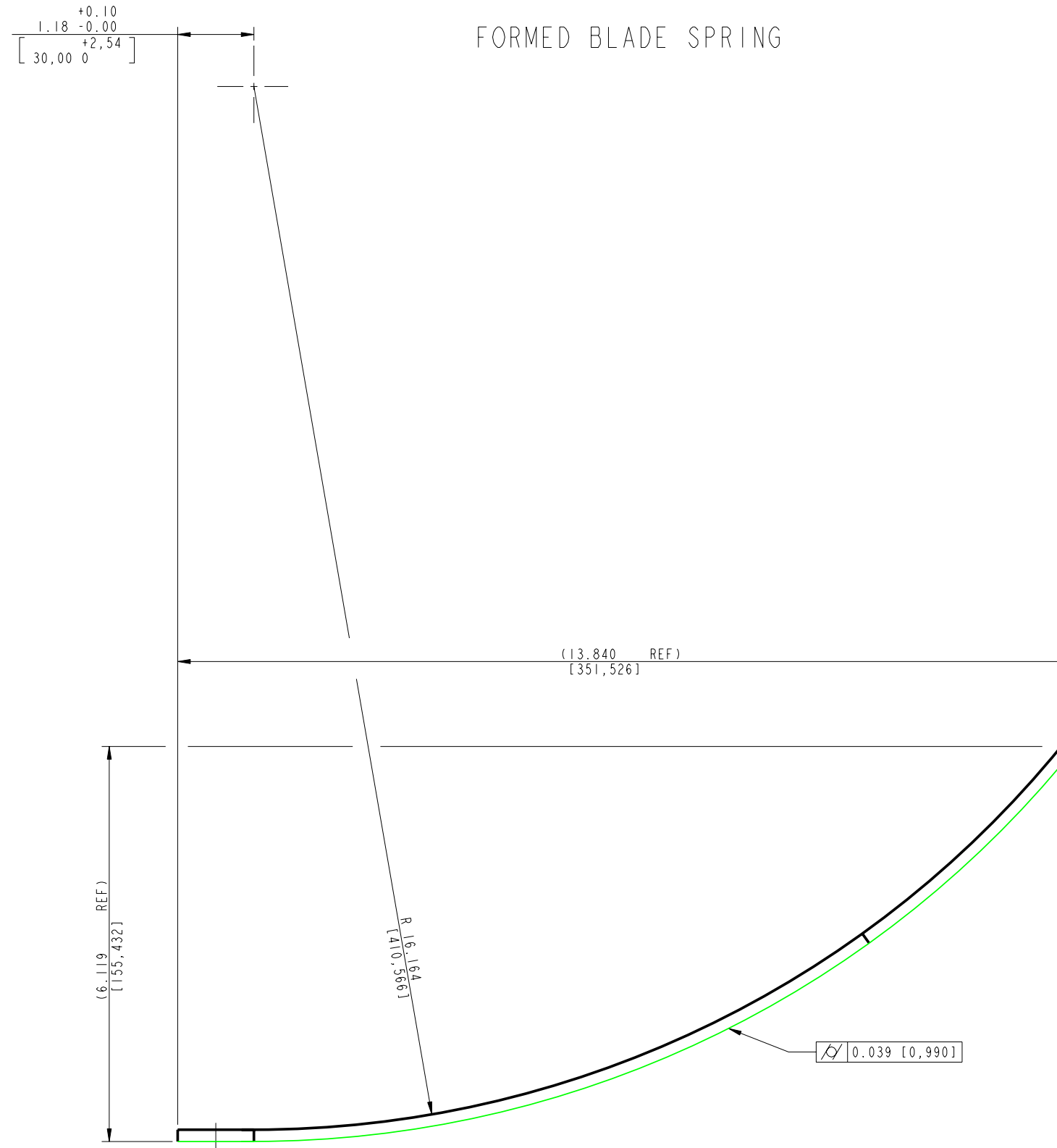
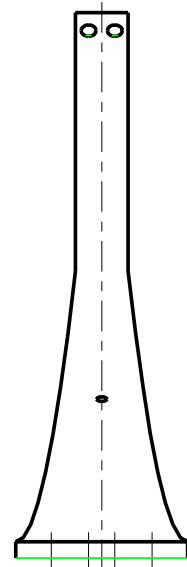
NOTES: (UNLESS OTHERWISE SPECIFIED)		CALIFORNIA INSTITUTE OF TECHNOLOGY MATERIALS RESEARCH LABORATORIES	
1. REMOVE ALL SHARP EDGES. R.02 MIN.	2. DO NOT SCALE FROM DRAWING.	DIMENSIONS ARE IN INCHES (mm)	TOLERANCES:
3. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE. SUCH AS LINCORNY, MILKRON'S CUMTECH 410 (STAINLESS STEEL).	4. SCRIBE, ENGRAVE OR STAMP DRAWING PART NUMBER ON NOTED SURFACE OF PART AND A THREE DIGIT SERIAL NUMBER. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE .07 HIGH CHARACTERS. EXAMPLE: 002018-001. A VIBRATORY TOOL MAY BE USED.	5. INTERPRET DIMENSIONS PER: ANSI Y14.5 1982	6. PRIOR TO DELIVERY HARDEN BY HEAT TREATMENT AT 435°C FOR 100 HOURS AND AIR COOL
7. DURING HEAT TREATMENT THE PART MUST BE SUPPORTED SO THAT IT DOES NOT CHANGE RADIUS DUE TO SELF WEIGHT		FINISH: CLEAN AND DEGREASED σ _{min} (Gsm) Ra = 32 (0.8)	MATERIAL: MARAGING STEEL 250 ANGULAR ±0.250°
		NAME: DATE:	PART NAME: UPPER INTERMEDIATE MASS
		DRAWN: I. WILNET 07/07/04	SYSTEM: ADVANCED LIGO
		CHECKED: DATE:	SUB-SYSTEM: SUS
		APPROVED: DATE:	NEXT ASSY: BOTTOM BLADE SPRINGS
			CONTROL: PROTOTYPE
			ORG. NO. D040296
			SCALE 1:1 PROJECTION: FIRST ANGLE SHEET 1 OF 2

INTERNAL NAME: TD-1039-990

FOR INTERNAL USE ONLY:

E=186Gpa
 ALPHA=1.35
 TOTAL SUSP MASS = 39 KG
 P MASS = 19.2 KG
 PREDICTED:
 F = 1.804Hz
 1st INTERNAL MODE = 115.5Hz
 σ MAX = 983MPa
 REF: COMMUNICATION WITH BLADE COMMITTEE

FORMED BLADE SPRING



NOTES: (UNLESS OTHERWISE SPECIFIED) 1. REMOVE ALL SHARP EDGES. R 02 MIN. 2. DO NOT SCALE FROM DRAWING. 3. ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILLACRON'S CIMTECH 410 (STAINLESS STEEL). 4. Scribe, engraving or stamp drawing part number on noted surface of part and a three digit serial number. SERIAL NUMBERS START AT 001 FOR THE FIRST PART AND PROCEED CONSECUTIVELY. USE 07" HIGH CHARACTERS. EXAMPLE: D020108-001, A VIBRATORY TOOL MAY BE USED. 5. INTERPRET DIMENSIONS PER: ANSI Y14.5 1987 6. PRIOR TO DELIVERY HARDEN BY HEAT TREATMENT AT 435°C FOR 100 HOURS AND AIR COOL. 7. DURING HEAT TREATMENT THE PART MUST BE SUPPORTED SO THAT IT DOES NOT CHANGE RADIUS DUE TO SELF WEIGHT.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY 100-900 UNIVERSITY AVENUE CAMBRIDGE, MASSACHUSETTS 02139-0001 SYSTEM: ADVANCED LIGO SUB-SYSTEM: SUS NEXT ASSY: UPPER INTERMEDIATE MASS PART NAME: BOTTOM BLADE SPRINGS CONTROLS PROTOTYPE
DIMENSIONS ARE IN INCHES (mm) TOLERANCES: X.XX ±0.01 (0.254 mm) X.XXX ±0.005 ANGULAR ±0.250 °	NAME: _____ DATE: _____ MATERIAL: MARAGING STEEL 250 FINISH: CLEAN AND DEGREASED σ _{max} (ksi): 32 (10.8)	DRAWN: I. WILMOT 07/07/04 CHECKED: _____ APPROVED: _____ Dwg. NO.: D040296 SCALE: 1:1 PROJECTION: A SHEET 2 OF 3