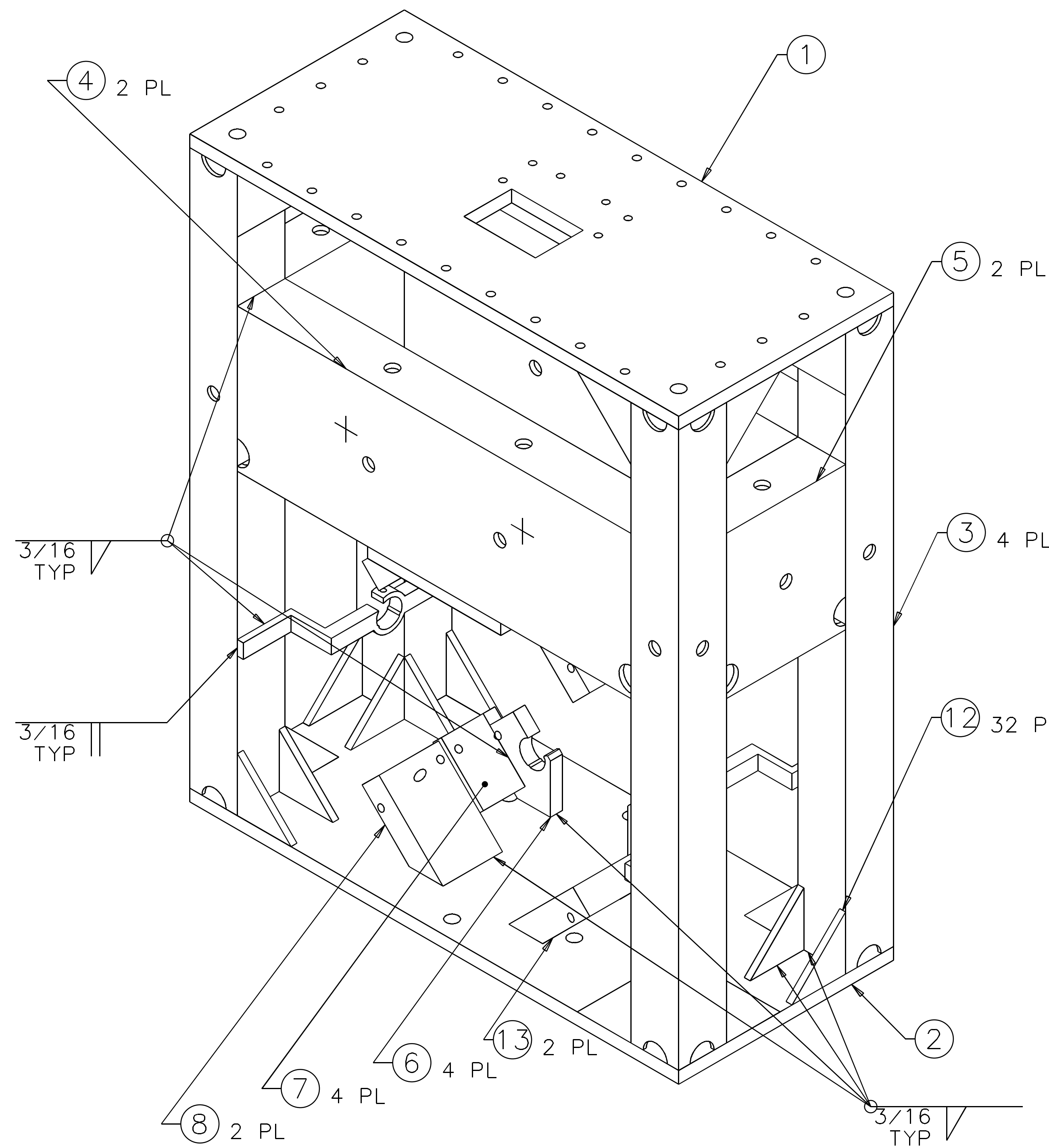
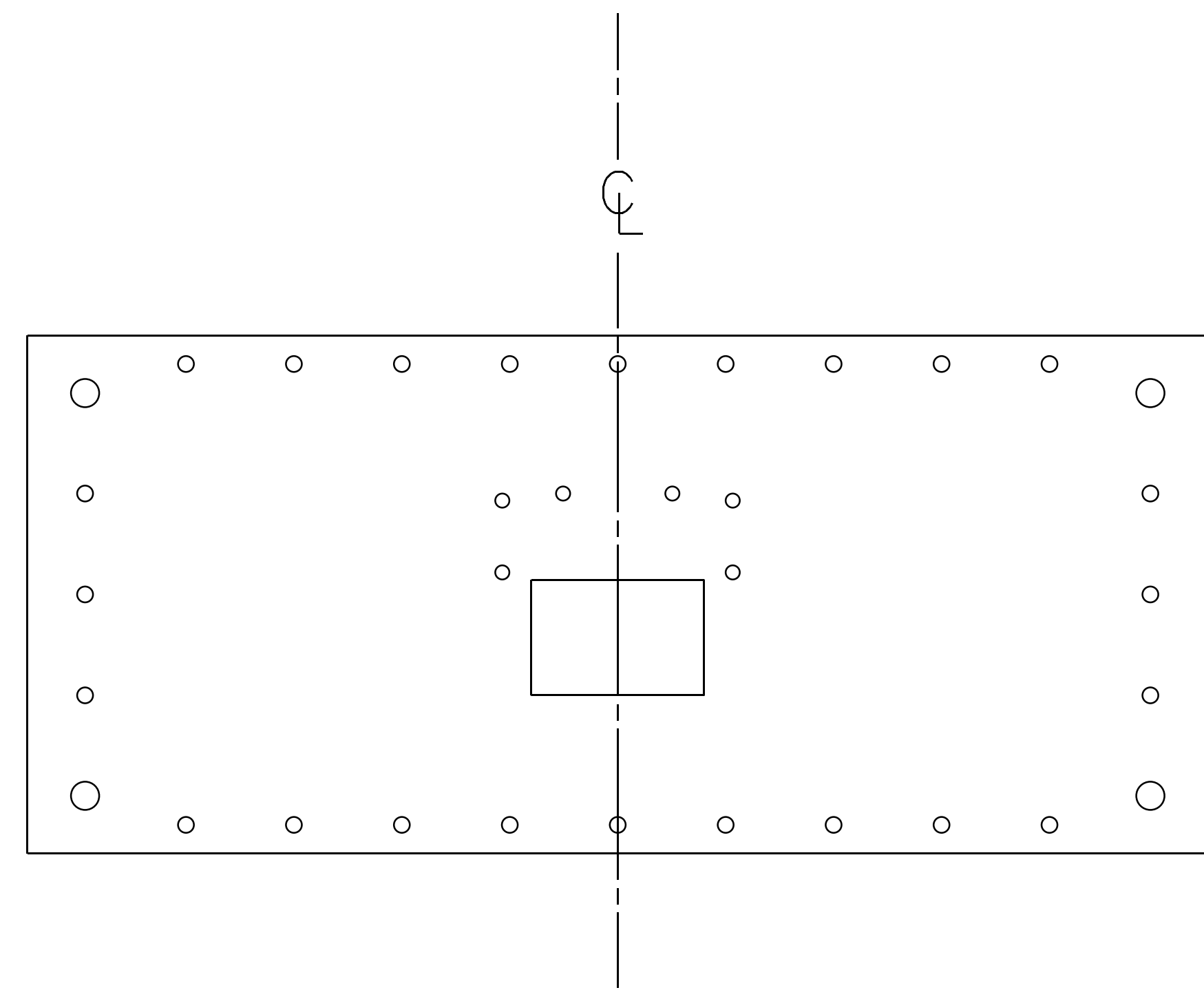
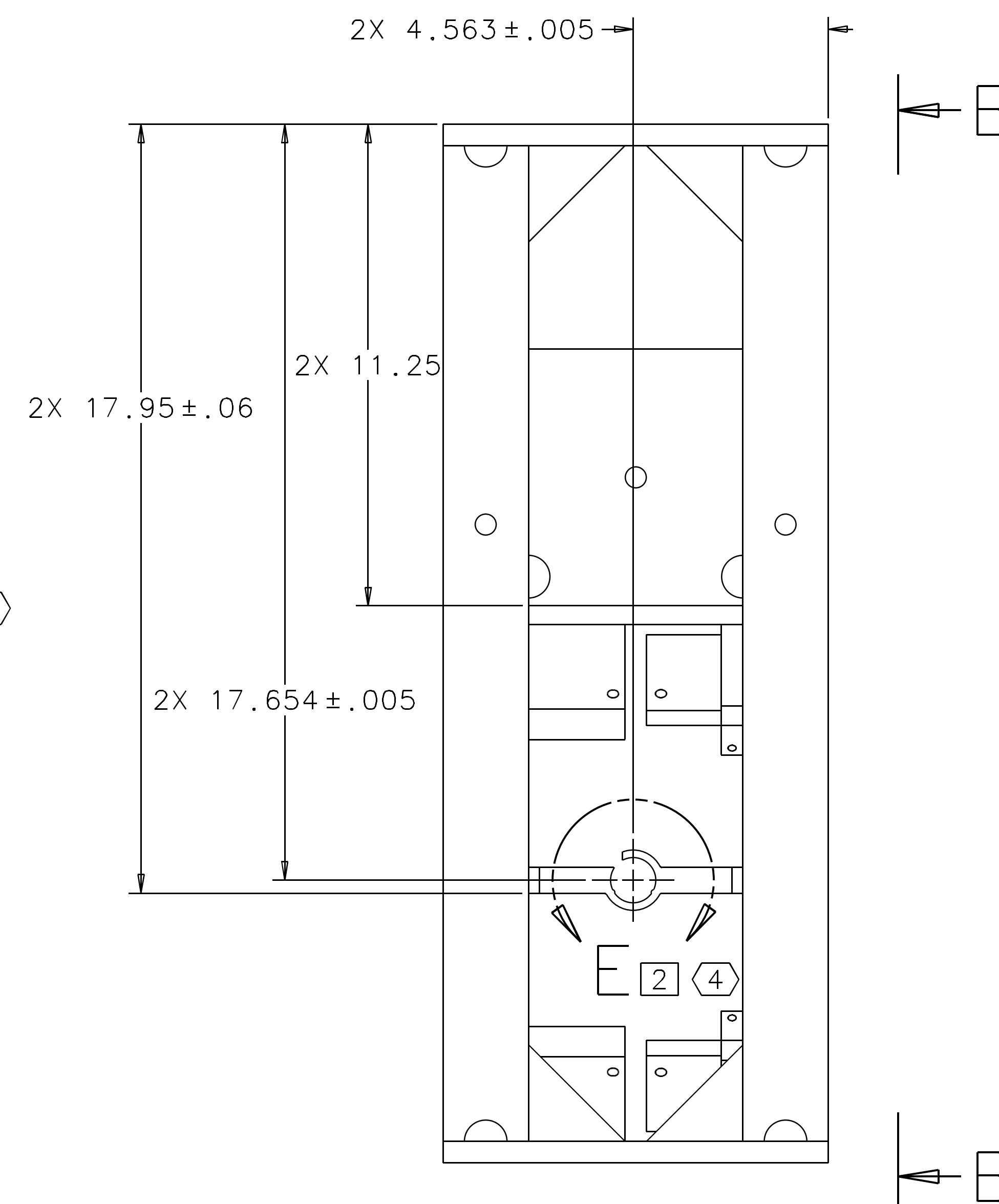
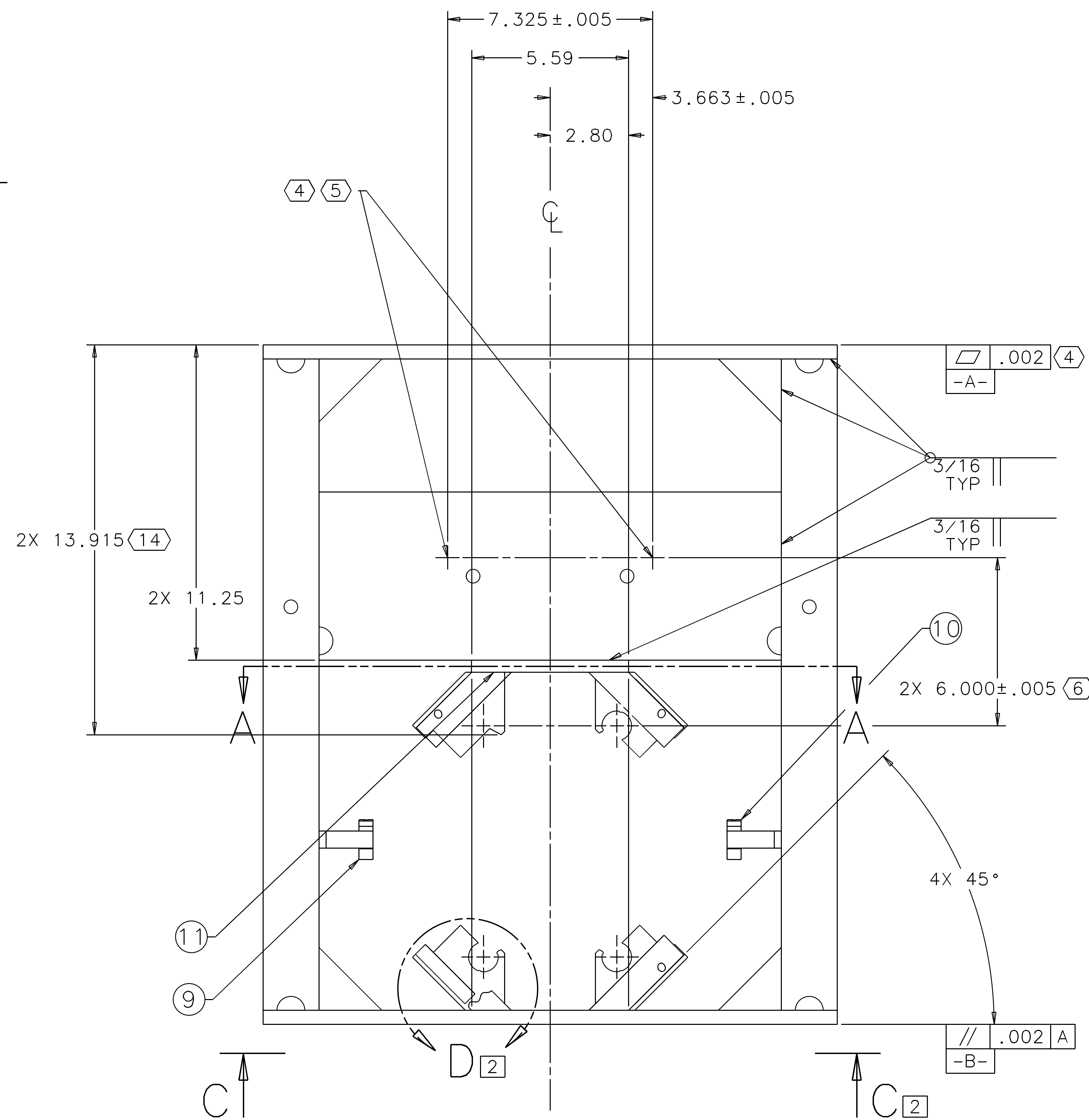


REV	DATE	DRAWN BY	CHECKED	DCC	DCN/DESCRIPTION
A	8-17-98	C. Conley	D. Coyne		E980078-00/INITIAL RELEASE
B	8-23-98	C. Conley			E980230-00



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- INTERPRET DRAWING PER ANSI Y14.5M-1982.
 - BREAK ALL SHARP EDGES.
 - SPECIFICATIONS FOR THE CONSTRUCTION OF THIS ASSEMBLY ARE DETAILED IN THE "LARGE OPTIC SUSPENSION STRUCTURAL FABRICATION SPECIFICATION" (LIGO E970038).
 - NOTED FEATURES TO BE MACHINED AFTER ANNEALING.
 - SIZE OF CROSSHAIR MARKS TO BE APPROXIMATELY AS SHOWN. ETCH OR SCRIBE ON FACE OF STRUCTURE AFTER ANNEALING. MAXIMUM WIDTH .01, MAXIMUM DEPTH .02.
 - APPLY CROSSHAIRS AFTER ANNEALING. SEE VIEW B-B FOR LOCATIONS AND MACHINING DETAILS OF FEATURES ON ITEMS 6 (SENSOR/ACTUATOR BRACKET), FROM WHICH CROSSHAIRS ARE VERTICALLY LOCATED.
 - WHEREVER APPLICABLE, PARTS AND FEATURES ARE LOCATED RELATIVE TO ITEM 1 (TOP PLATE).
 - SIDE FACE OF ITEM 2 (BOTTOM PLATE).
 - REFERENCE TO SIDE FACE OF ITEM 1 (TOP PLATE).
 - TOOLING BALL TO BE MOUNTED ON DRILLING FIXTURE TO NOTED RELATIVE DIMENSIONS.
 - GUSSET THICKNESSES ARE NOT TO SCALE IN DRAWING VIEWS.
 - RELIEF SLOTS ON ITEMS 6 THROUGH 11 NOT SHOWN.
 - INTERFACE BETWEEN ITEMS 4 (STIFFENER) AND 11 (ADAPTER PLATE): NOMINAL PIECE PART DIMENSIONS MAY NEED TO BE MODIFIED TO ASSURE FULL PENETRATION WELD AND FLUSH ALIGNMENT $\pm .05$, OF ADAPTER PLATE TO STIFFENERS.
 - ITEM 6 (SENSOR/ACTUATOR BRACKET) IS SHOWN IN THE UNMACHINED CONDITION FOR LOCATING DIMENSION.

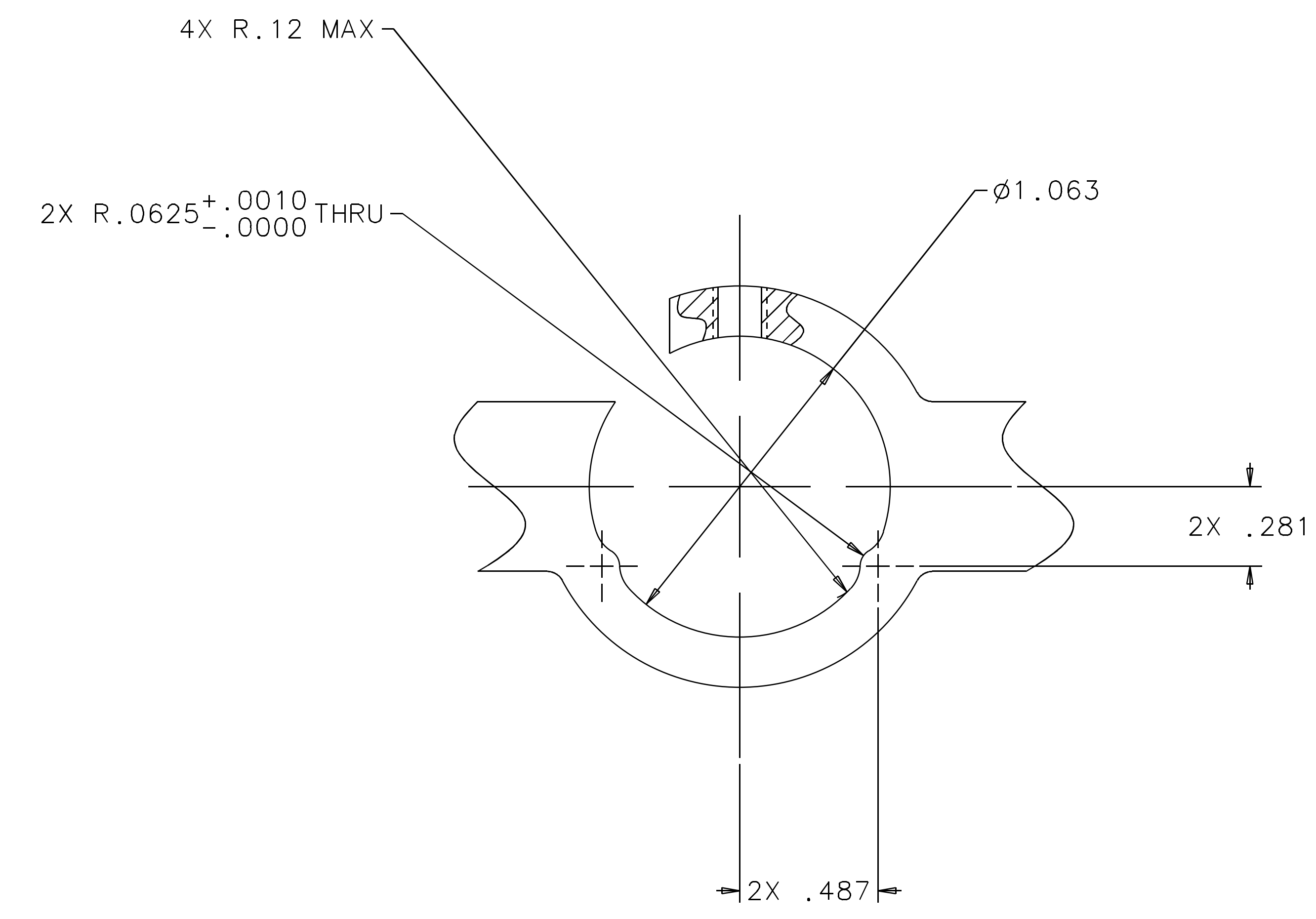


QTY	REQD	FSOM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	PARTS LIST	MATERIAL SPECIFICATION	ITEM NO
2			D970546-2	BRACKET, SAFETY STOP, FRONT			13
32				GUSSET, 2.25 x 2.25 x 45°, .12 THK (11)		304 STAINLESS STEEL	12
1			D970549	ADAPTER PLATE			11
1			D970570	BRACKET, SENSOR/ACTUATOR, RIGHT SIDE			10
1			D970548	BRACKET, SENSOR/ACTUATOR, LEFT SIDE			9
2			D970546-1	BRACKET, SAFETY STOP, FRONT			8
4			D970547	BRACKET, SAFETY STOP, REAR			7
4			D970545	BRACKET, SENSOR/ACTUATOR			6
2			D970544	SIDE STIFFENER			5
2			D970543	FRONT STIFFENER			4
4			D960504	LEG			3
1			D970542	BOTTOM PLATE			2
1			D970541	TOP PLATE			1

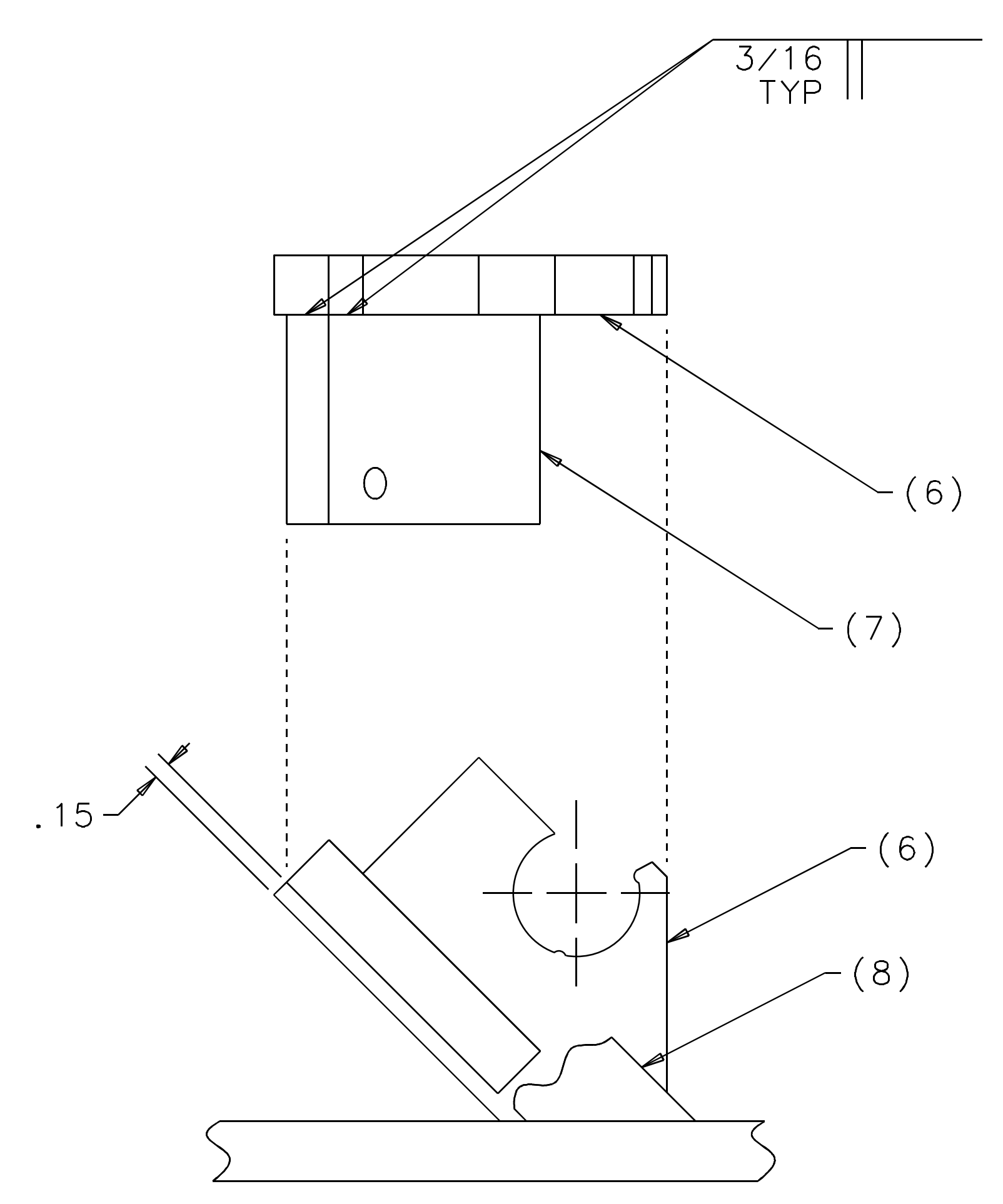
DRWN	C. Conley	DATE	8-17-98	CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
CHKD				1-Deas CAD file: D970506_B.dwg dcc file: D970506-B.pdf			
ENGR				TITLE LARGE OPTIC SUSPENSION 2 STRUCTURE ASSEMBLY (BEAMSPLITTER)			
APPD				SCALE: NTS		SIZE	DRAWING NUMBER
UNLESS OTHERWISE SPECIFIED: DIMENSION UNITS ARE inches [mm] TOLERANCES ARE: X.XXX: ± 0.01 X.XX: ± 0.03 X.X: ± 0.1				NEXT ASSEMBLY: D970505		E	D970506-B-D
						SHEET	1 of 6

8 7 6 5 4 3 2 1

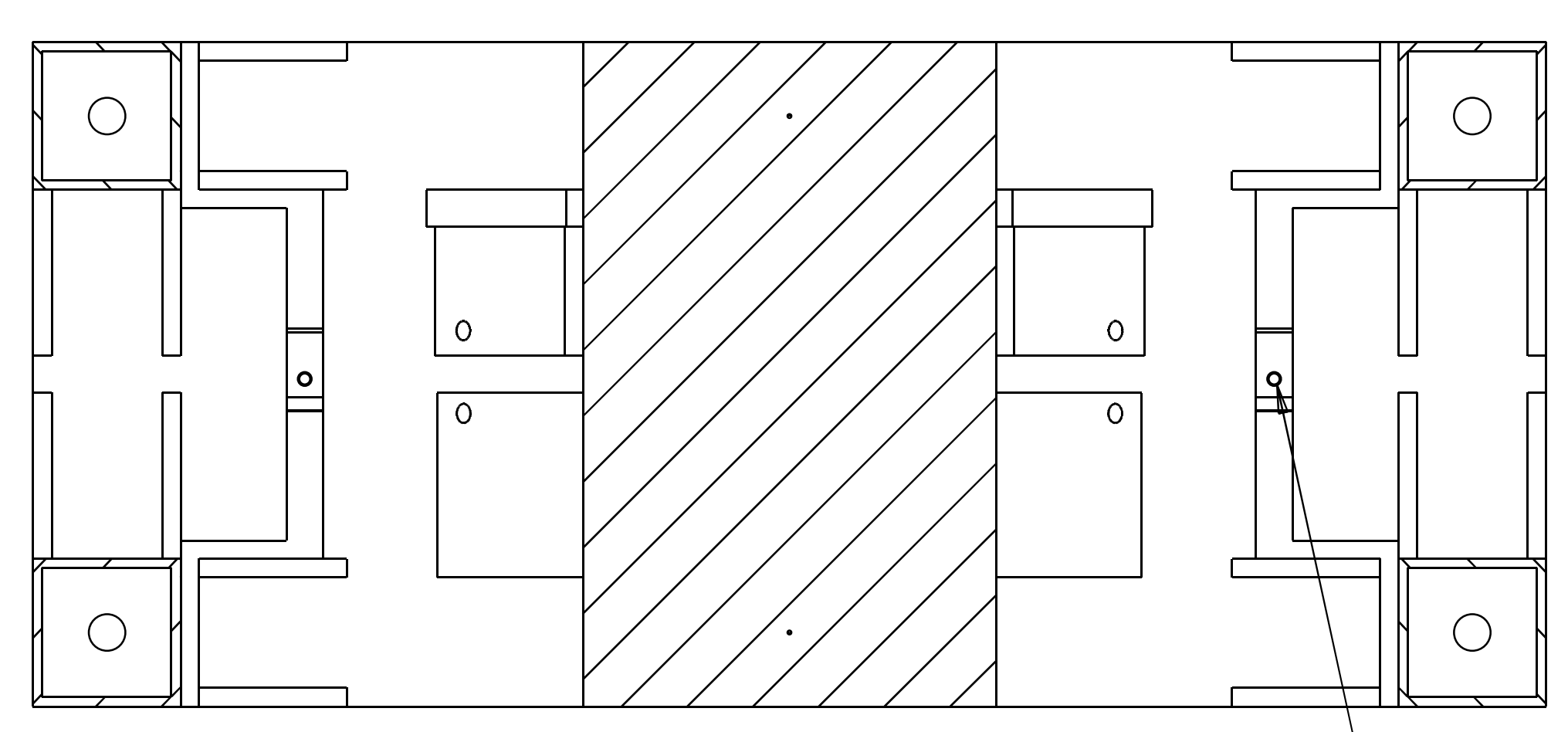
F
E
D
C
B
A



DETAIL E 1 4
MACHINED SENSOR/ACTUATOR RECEPTACLE, 2 PL

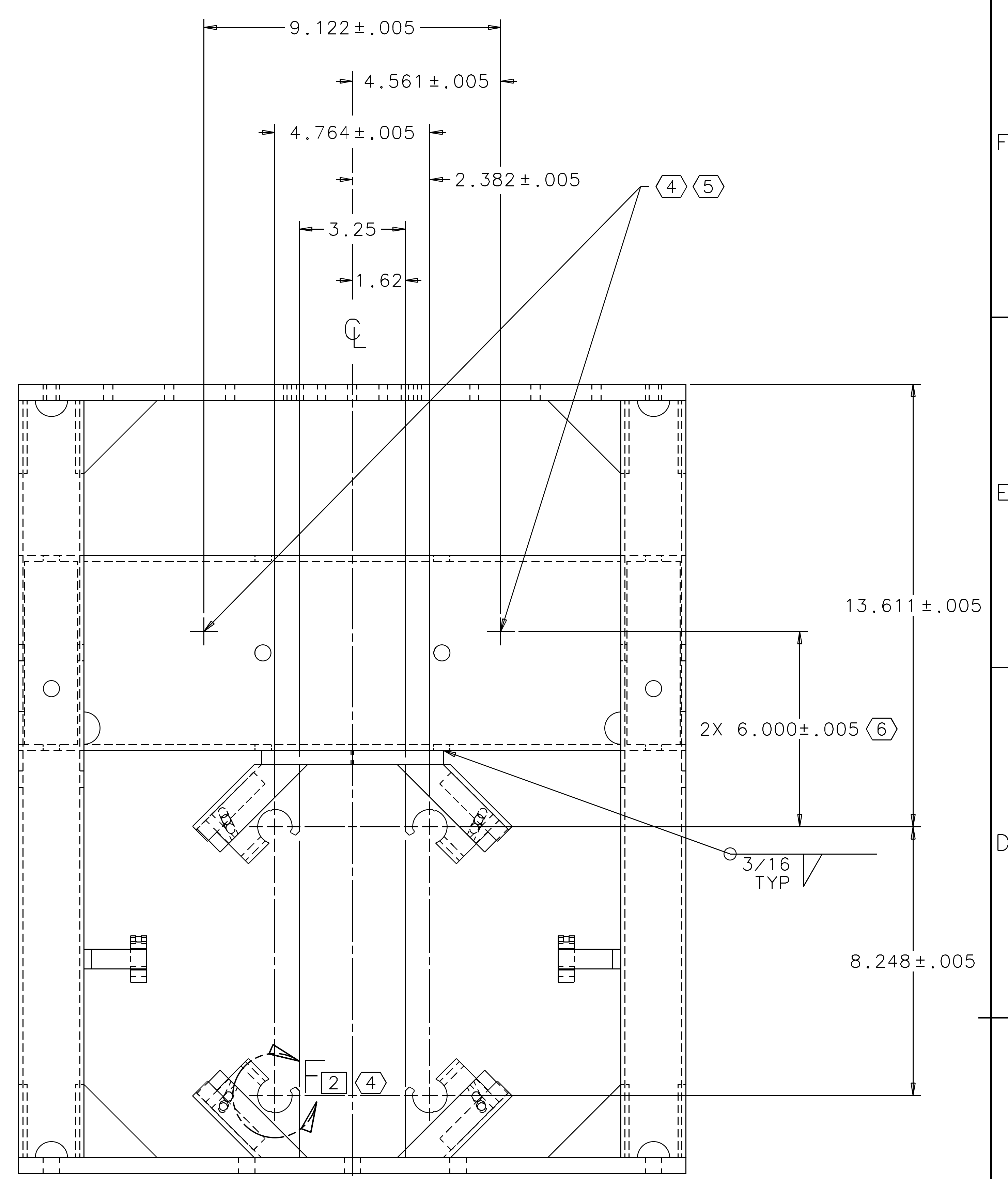


DETAIL D 1
WELDMENT OF ITEM 6 (SENSOR/ACTUATOR BRACKET)
AND ITEM 8 (REAR SAFETY STOP BRACKET), 4 PL

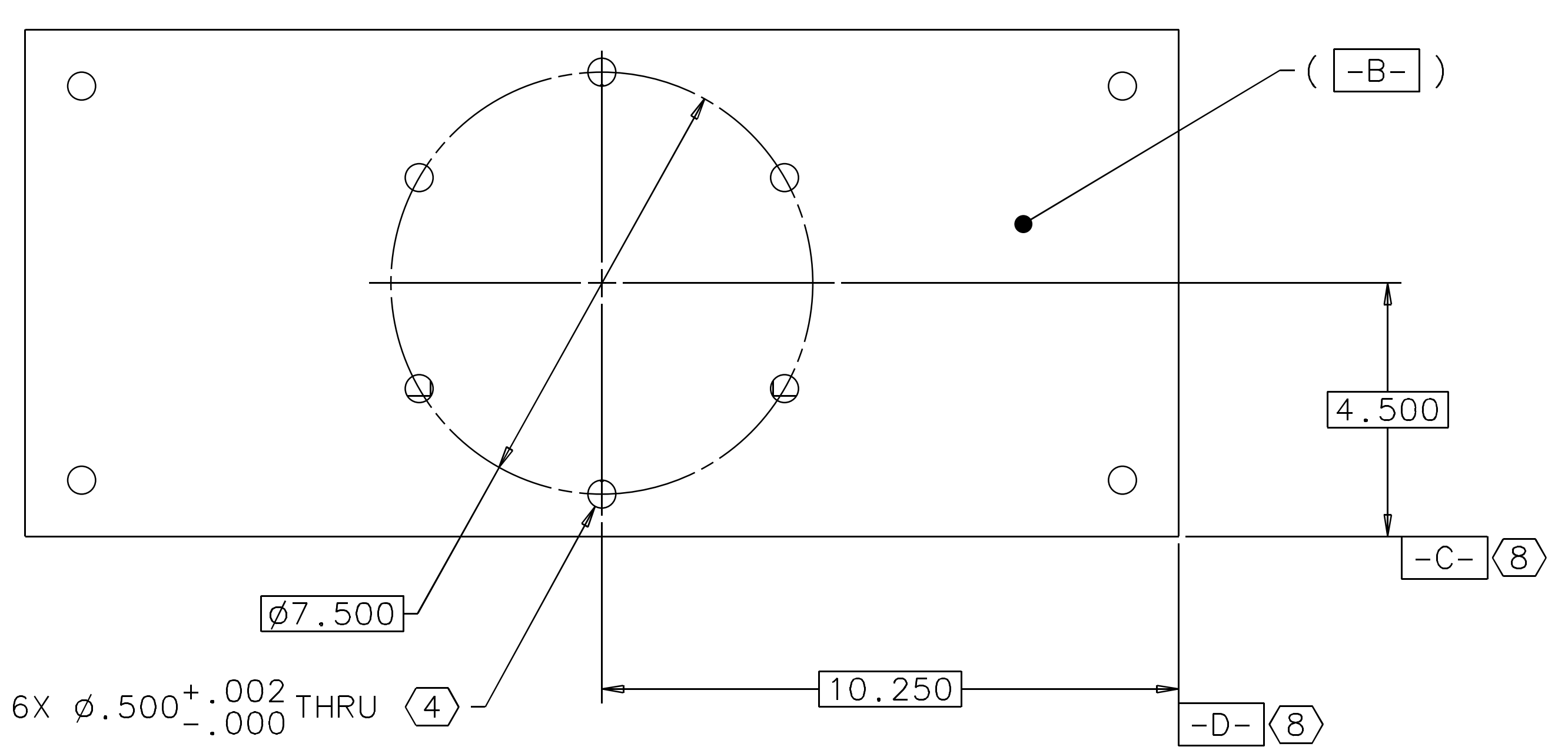


SECTION A-A 1

2X #10-32 UNC-2B THRU
82°-100° X ϕ .25±.01

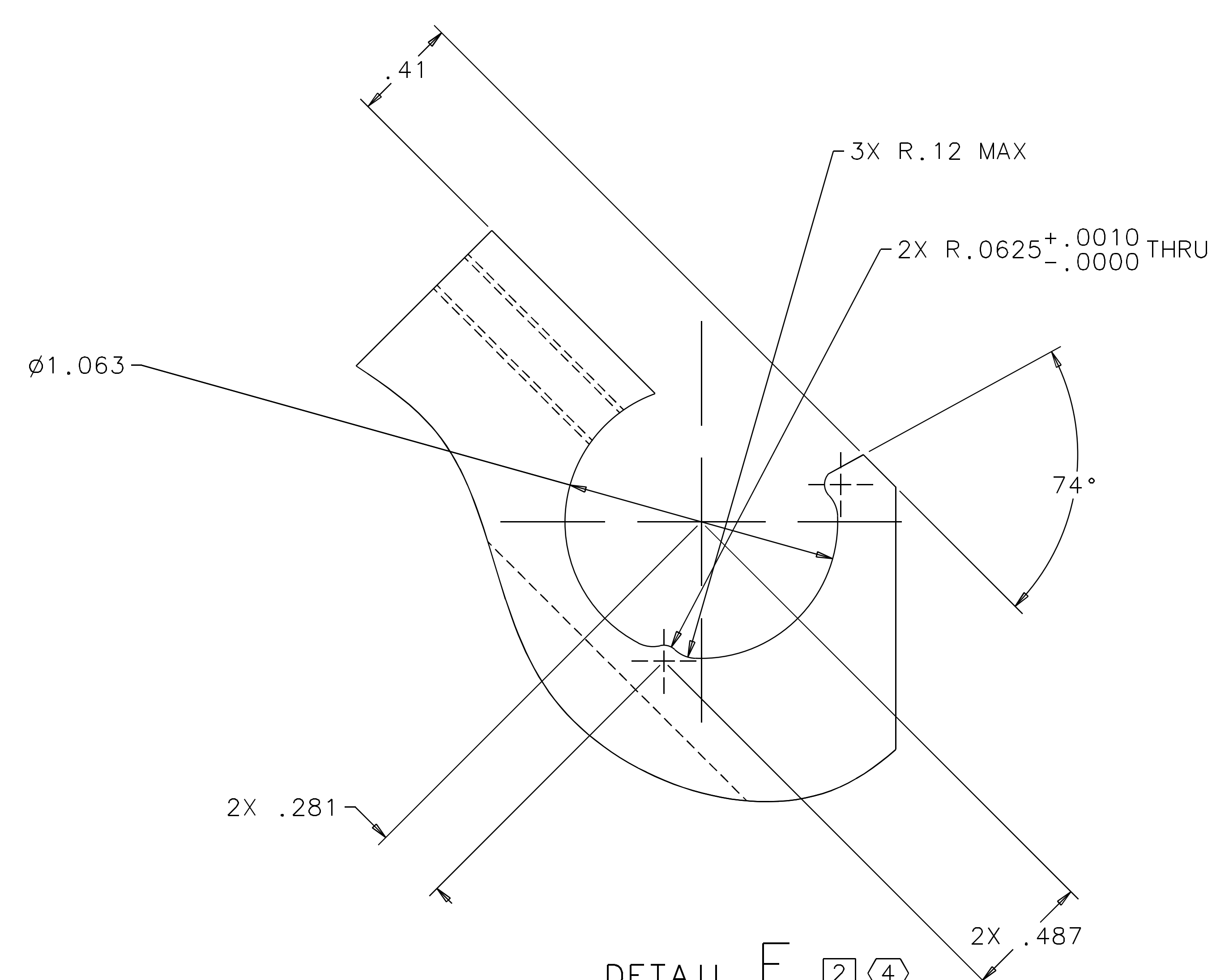


VIEW B-B 1



VIEW C-C 1

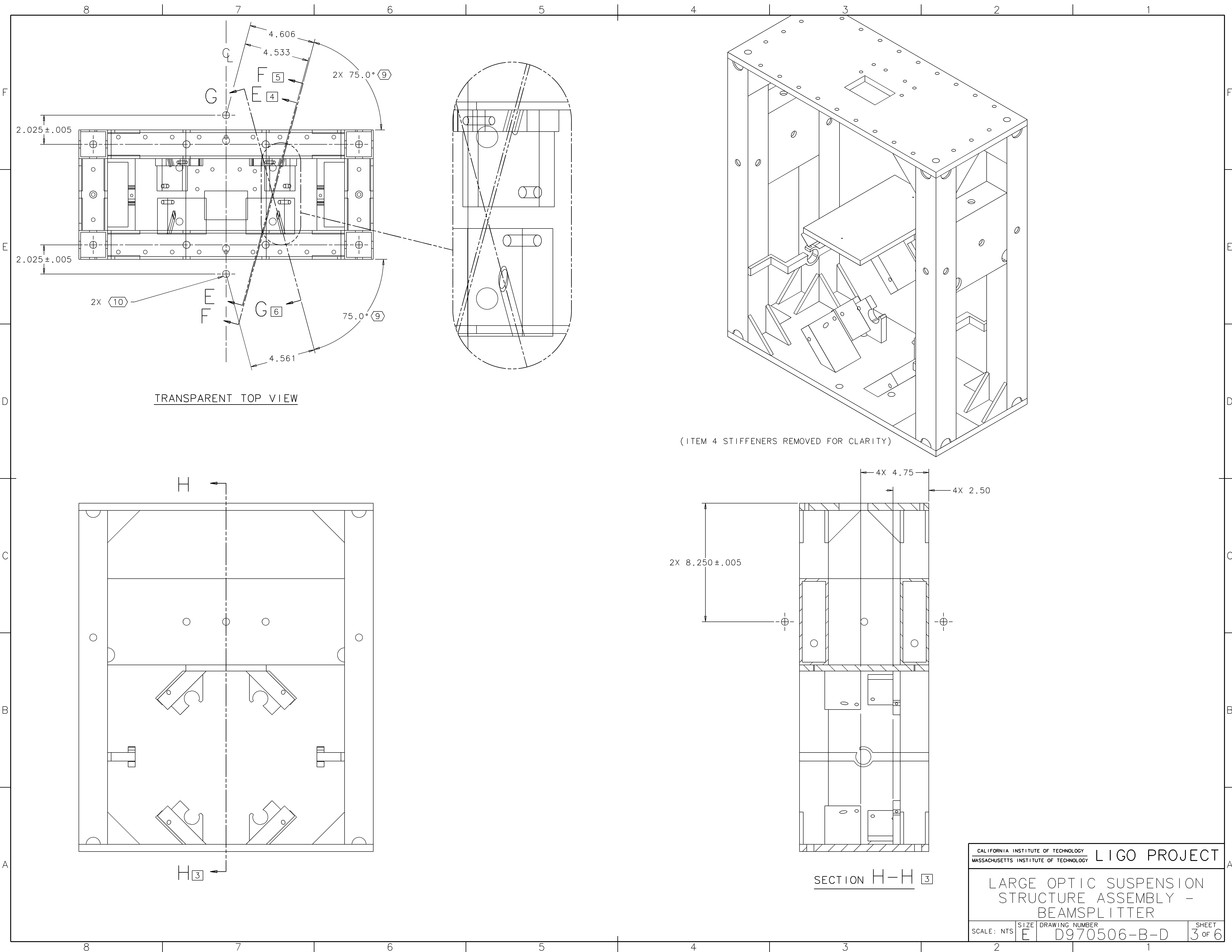
6X ϕ .500^{+0.002}/_{-.000} THRU
EQUALLY SPACED
 ϕ .002 M B C D



DETAIL F 2 4
MACHINED SENSOR/ACTUATOR RECEPTACLE, 4 PL

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION STRUCTURE ASSEMBLY - BEAMSPLITTER			
SCALE: NTS	SIZE E	DRAWING NUMBER D970506-B-D	SHEET 2 OF 6

8 7 6 5 4 3 2 1

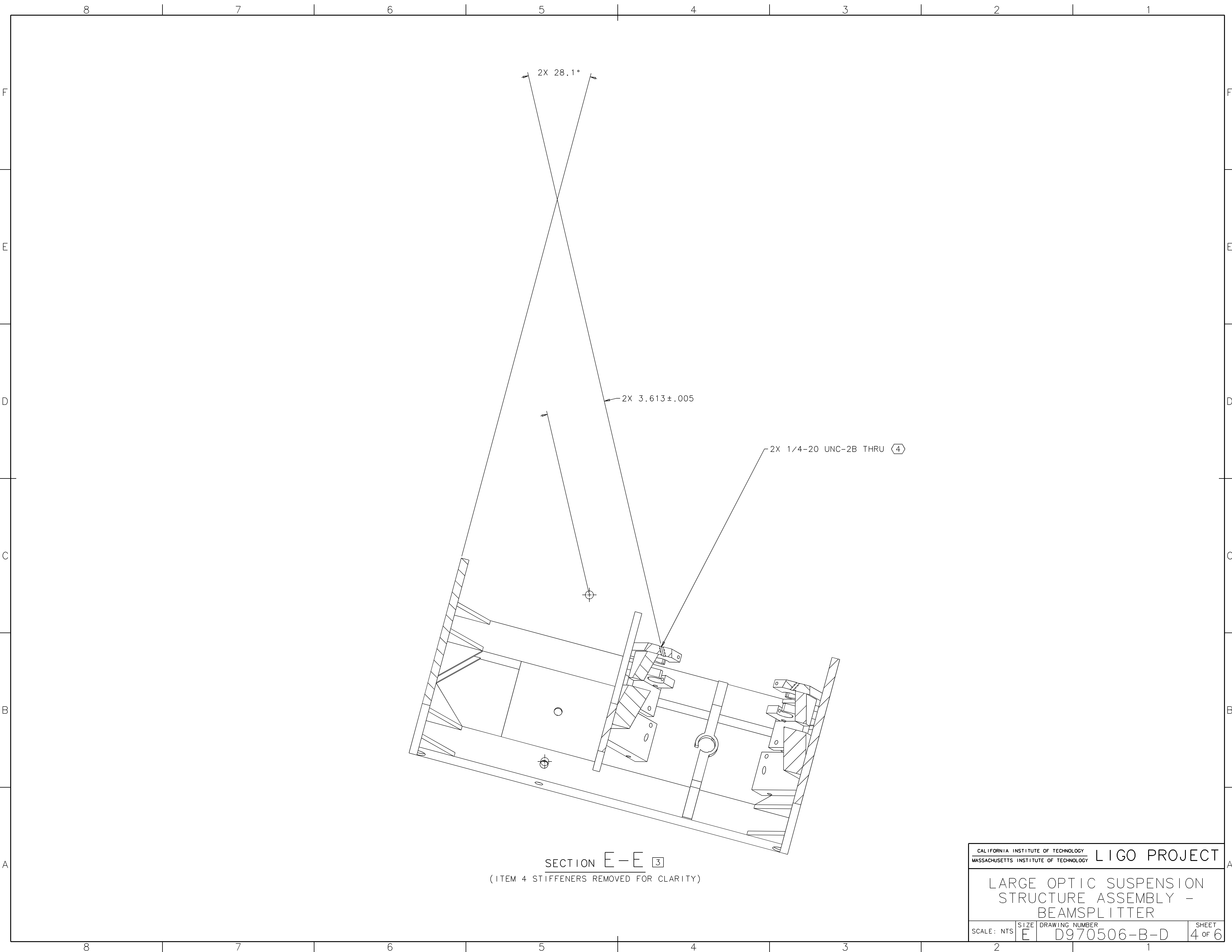


TRANSPARENT TOP VIEW

(ITEM 4 STIFFENERS REMOVED FOR CLARITY)

SECTION H-H

CALIFORNIA INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
LARGE OPTIC SUSPENSION STRUCTURE ASSEMBLY - BEAMSPLITTER			
SCALE: NTS	SIZE	DRAWING NUMBER	SHEET
	E	D970506-B-D	3 OF 6



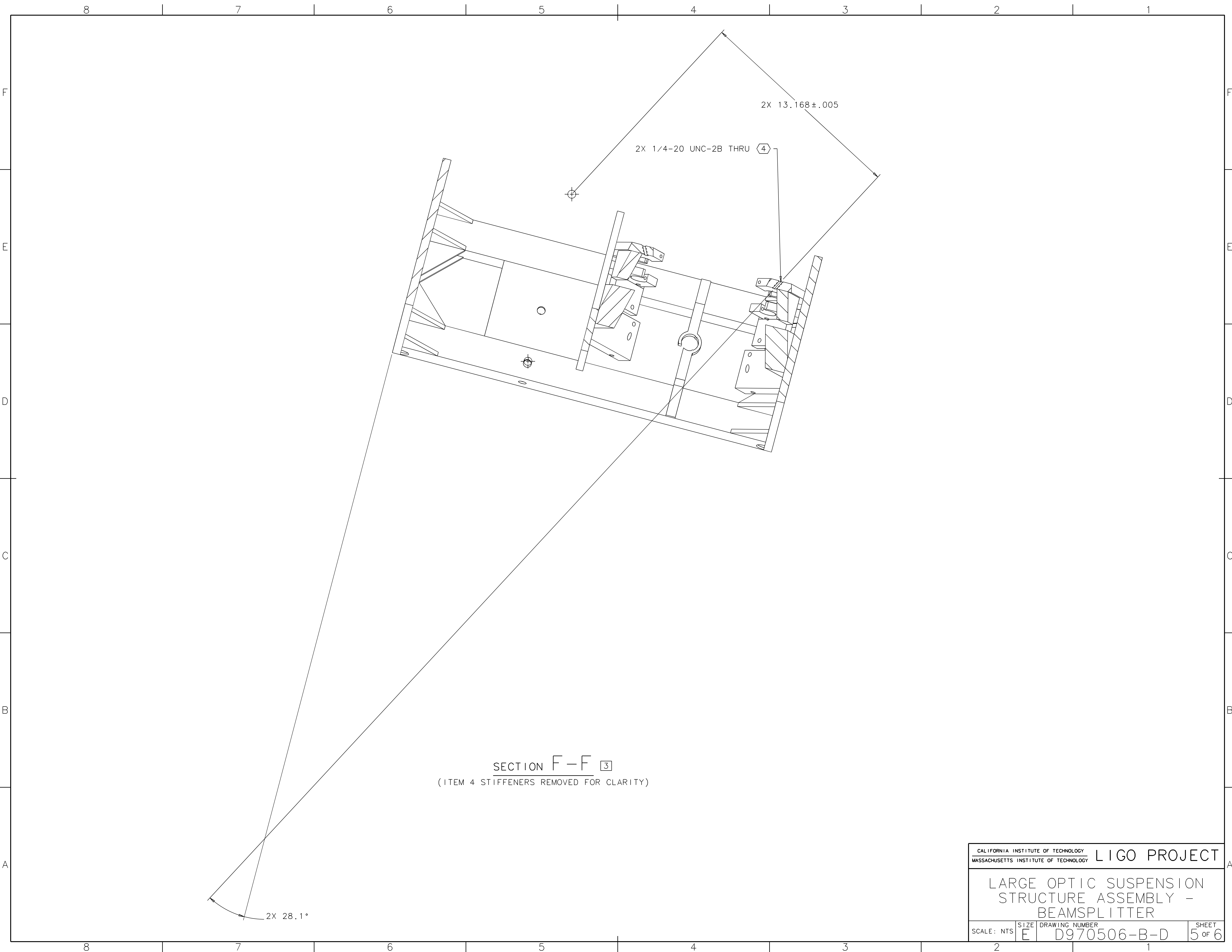
2X 28.1°

2X 3.613±.005

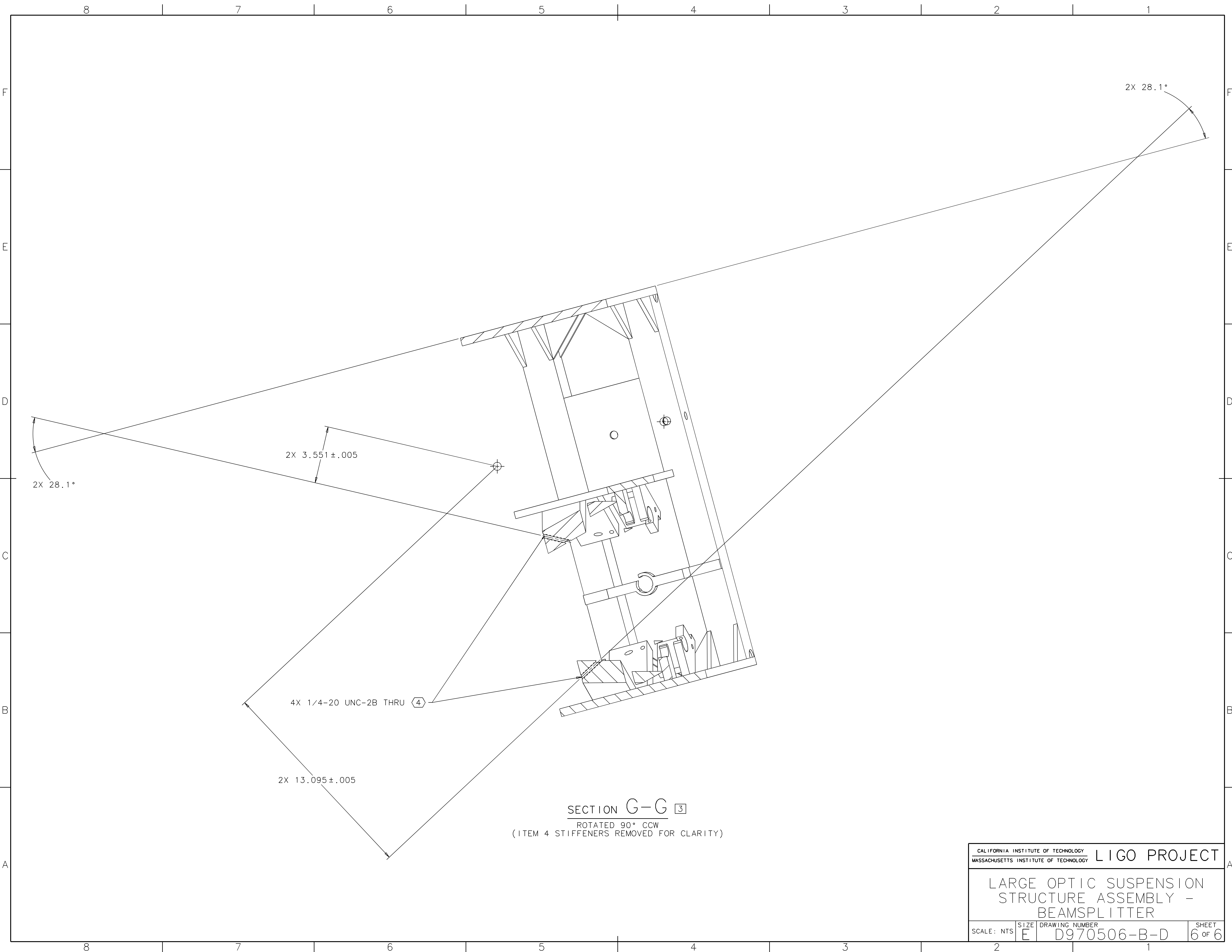
2X 1/4-20 UNC-2B THRU (4)

SECTION E-E (3)
 (ITEM 4 STIFFENERS REMOVED FOR CLARITY)

CALIFORNIA INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
LARGE OPTIC SUSPENSION STRUCTURE ASSEMBLY - BEAMSPLITTER			
SCALE: NTS	SIZE	DRAWING NUMBER	SHEET
	E	D970506-B-D	4 of 6



CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION STRUCTURE ASSEMBLY - BEAMSPLITTER			
SCALE: NTS	SIZE	DRAWING NUMBER	SHEET
	E	D970506-B-D	5 of 6



SECTION G-G [3]
 ROTATED 90° CCW
 (ITEM 4 STIFFENERS REMOVED FOR CLARITY)

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		LIGO PROJECT	
LARGE OPTIC SUSPENSION STRUCTURE ASSEMBLY - BEAMSPLITTER			
SCALE: NTS	SIZE	DRAWING NUMBER	SHEET
	E	D970506-B-D	6 OF 6